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      *           20           *           40           *
PCP0749 : MSKIRRKVTVENTKTISDSTSRRPSVFERLGPSTGTAETQCRNWLKTGNCLYGNTCR : 58
KIAA0803 : ----- : -

      60           *           80           *           100           *
PCP0749 : FVHGSPRKGYSNNYRRSPERPTGDLRERMKNKRQDVDETPQKRNTTESSSPVRKES : 116
KIAA0803 : ----- : -

      120          *           140          *           160          *
PCP0749 : SRGRHREKEDIKITKERTPESEEEENVWETNRDDSDNGDINYDYVHELSEMKRQKIQ : 174
KIAA0803 : ----- : -

      180          *           200          *           220          *
PCP0749 : RELMKLEQENMEKREEIIKKEVSPVVRSKLSPSPSLRKSSKSPKRKSSPKSSASK : 232
KIAA0803 : ----- : -

      240          *           260          *           280          *
PCP0749 : KDRKTSAVSSPLDQQRNSKTNQSKKKGPRTSPPPPIPEDIALGKKYKEKYVKVDRI : 290
KIAA0803 : ----- : -

      300          *           320          *           340
PCP0749 : EEKTRDGKDRGRDFERQREKRDKPRSTSPAGQHHSPISRRHHSSSSQSGSSIQRHSPS : 348
KIAA0803 : ----- : -

      *           360          *           380          *           400
PCP0749 : PRRKRTSPSPSYQRTLTPLRRSASPYPSPHSLSSPQRKQSPPRHRSFMREKGRHDHERT : 406
KIAA0803 : -----MREKGRHDHERT : 12
                                     MREKGRHDHERT

      *           420          *           440          *           460
PCP0749 : SQSHDRRHERREDTRGKRDREKDSREEREYEQDQSSSRDHRDDREPRDGRDRRDARDT : 464
KIAA0803 : SQSHDRRHERREDTRGKRDREKDSREEREYEQDQSSSRDHRDDREPRDGRDRRDARDT : 70
          SQSHDRRHERREDTRGKRDREKDSREEREYEQDQSSSRDHRDDREPRDGRDRRDARDT

      *           480          *           500          *           520
PCP0749 : RDRRELDSRDMRDSREMRDYSRDTKESRDPDRSRSTRDAHDYRDREGDRDTHRKEDTY : 522
KIAA0803 : RDRPELDSRDMRDSREMRDYSRDTKESRDPDRSRSTRDAHDYRDREGDRDTHRKEDTY : 128
          RDRRELDSRDMRDSREMRDYSRDTKESRDPDRSRSTRDAHDYRDREGDRDTHRKEDTY

      *           540          *           560          *           580
PCP0749 : PEESRSYGRNHLREESSRTEIRNESRNESRSEIRNDRMGRSRGRVPELPEKGSRGSRG : 580
KIAA0803 : PEESRSYGRNHLREESSRTEIRNESRNESRSEIRNDRMGRSRGRVPELPEKGSRGSRG : 186
          PEESRSYGRNHLREESSRTEIRNESRNESRSEIRNDRMGRSRGRVPELPEKGSRGSRG

      *           600          *           620          *           6
PCP0749 : SQIDSHSSNSNYHDSWETRSSYPEDRYPERDNRDQARDSSFERRHGERDRDRNRERD : 638
KIAA0803 : SQIDSHSSNSNYHDSWETRSSYPEDRYPERDNRDQARDSSFERRHGERDRDRNRERD : 244
          SQIDSHSSNSNYHDSWETRSSYPEDRYPERDNRDQARDSSFERRHGERDRDRNRERD

      40           *           660          *           680          *
PCP0749 : QRPSSPIRHQGRNDELERDERREERRVDRVDDRRDERARERDRERERERERERE : 696
KIAA0803 : QRPSSPIRHQGRNDELERDERREERRVDRVDDRRDERARERDRERERERERERE : 302
          QRPSSPIRHQGRNDELERDERREERRVDRVDDRRDERARERDRERERERERERE

      700          *           720          *           740          *
PCP0749 : RDREREKERELERERARERERERERERERERERDRDRDRDHDREERERERERERERE : 754
KIAA0803 : RDREREKERELERERARERERERERERERERERERERERDRDRDRDHDREERERERERERE : 360
          RDREREKERELERERARERERERERERERERERERERERERERERERERE

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FIG. 1A

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**FIG. 1B**

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PCP0389 : MDLHKQWENTETNWHKEKMELLDQFDNERKEWESQWKIMQKKIEELCREVKLWRKININ : 59
KIAA0408 : ----- : -

PCP0389 : 0      *      80      *      100      *      1      M : 118
KIAA0408 : ----- : 1
M

PCP0389 : 20      *      140      *      160      *      : 177
KIAA0408 : CKEQKATKKSKVGFLDPLATDNQKECEAWPDLRTSEEDSKSCSGALSTALEELAKVSEE : 60
CKEQKATKKSKVGFLDPLATDNQKECEAWPDLRTSEEDSKSCSGALSTALEELAKVSEE

PCP0389 : 180      *      200      *      220      *      : 236
KIAA0408 : LCSFQEEIRKRSNHRMRKSDSFLQEMPVNTNIPHGDPMINNDQCILPISLEKEKQKNRK : 119
LCSFQEEIRKRSNHRMRKSDSFLQEMPVNTNIPHGDPMINNDQCILPISLEKEKQKNRK

PCP0389 : 240      *      260      *      280      *      : 295
KIAA0408 : NLSCTNVLQSNSTKKCGIDTIDLKRNETPPVPPPRSTSRNFPSSDSEQAYERWKERLDH : 178
NLSCTNVLQSNSTKKCGIDTIDLKRNETPPVPPPRSTSRNFPSSDSEQAYERWKERLDH

PCP0389 : 300      *      320      *      340      *      : 354
KIAA0408 : NSWVPHEGRSKRNYNPHFPLRQEQMSMLYPNEGKTSKDGIIFSSLVPEVKIDSKPPSNE : 237
NSWVPHEGRSKRNYNPHFPLRQEQMSMLYPNEGKTSKDGIIFSSLVPEVKIDSKPPSNE

PCP0389 : 360      *      380      *      400      *      : 413
KIAA0408 : DVGLSMWSCDIGIGAKRSPSTSWFQKTCSTPSNPKYEMVIPDHPAKSHPDHLVSNDCSS : 296
DVGLSMWSCDIGIGAKRSPSTSWFQKTCSTPSNPKYEMVIPDHPAKSHPDHLVSNDCSS

PCP0389 : 420      *      440      *      460      *      : 472
KIAA0408 : SVAESSPLRNFSCGFERTTRNEKLAAKTDEFNRTVFRTDRNCQAIQQNHSCSKSSEDL : 355
SVAESSPLRNFSCGFERTTRNEKLAAKTDEFNRTVFRTDRNCQAIQQNHSCSKSSEDL

PCP0389 : 480      *      500      *      520      *      : 531
KIAA0408 : KPCDTSSTHTGSIQSNDVSGIWKTAHMPVPMENVPDNPTKKSTTGLVRQMGGHLSPR : 414
KPCDTSSTHTGSIQSNDVSGIWKTAHMPVPMENVPDNPTKKSTTGLVRQMGGHLSPR

PCP0389 : 540      *      560      *      580      *      : 590
KIAA0408 : SYRNMLHEHDWRPSNLSGRPRPSADPRSNGVVEKLLKTYETATESALQNSKCFQDNWTK : 473
SYRNMLHEHDWRPSNLSGRPRPSADPRSNGVVEKLLKTYETATESALQNSKCFQDNWTK

PCP0389 : 600      *      620      *      640      : 649
KIAA0408 : CNSDVSGGATLSQHLEMLQMEQQFQOKTAVWGGQEVKQGIDPKKITEESMSVNASHGKG : 532
CNSDVSGGATLSQHLEMLQMEQQFQOKTAVWGGQEVKQGIDPKKITEESMSVNASHGKG

PCP0389 : *      660      *      680      *      700      : 694
KIAA0408 : FSRPARPANRRRLPSRWASRSPSAPPALRRTHNYTISLRSEALMV----- : 577
FSRPARPANRRRLPSRWASRSPSAPPALRRTHNYTISLRSEALMV

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FIG. 2

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      *           20           *           40           *
PCP0814 : MFRAPCHRLRARGTRKARAGAWRGCTFPCLGKGMERPAAREPHGPDALRRFQGLLLDR : 58
NM_030817 : -----MERPAAREPHGPDALRRFQGLLLDR : 25
                                     MERPAAREPHGPDALRRFQGLLLDR

      60           *           80           *           100           *
PCP0814 : RGRLLHRQVLRRLREVARRLERLRRRSLVANVAGSSLSATGALAAIVGLSLSPVTLGTSI : 116
NM_030817 : RGRLLHRQVLRRLREVARRLERLRRRSLVANVAGSSLSATGALAAIVGLSLSPVTLGTSI : 83
                                     RGRLLHRQVLRRLREVARRLERLRRRSLVANVAGSSLSATGALAAIVGLSLSPVTLGTSI

      120          *           140          *           160          *
PCP0814 : LVSAVGLGVATAGGAVTITSDLSLIFCNSRELRRVQEIATCQDQMREILSCLEFFCR : 174
NM_030817 : LVSAVGLGVATAGGAVTITSDLSLIFCNSRELRRVQEIATCQDQMREILSCLEFFCR : 141
                                     LVSAVGLGVATAGGAVTITSDLSLIFCNSRELRRVQEIATCQDQMREILSCLEFFCR

      180          *           200          *           220          *
PCP0814 : WQCGGDRQLLQCGRNASIALYNSVYFIVFFGSRGFLIPRRAEGDTKVSQAVLKAKIQK : 232
NM_030817 : WQCGGDRQLLQCGRNASIALYNSVYFIVFFGSRGFLIPRRAEGDTKVSQAVLKAKIQK : 199
                                     WQCGGDRQLLQCGRNASIALYNSVYFIVFFGSRGFLIPRRAEGDTKVSQAVLKAKIQK

      240          *           260          *
PCP0814 : LAESLESCTGALDELSEQLESRVQLCTKSSRGHDLKISADQAGLFF : 279
NM_030817 : LAESLESCTGALDELSEQLESRVQLCTKSSRGHDLKISADQAGLFF : 246
                                     LAESLESCTGALDELSEQLESRVQLCTKSSRGHDLKISADQAGLFF

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FIG. 3

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PCP0623 : *          20          *          40          *
NM_015384 : MNGDMPHVPIITLAGIASLTDLNLQLPLPSPLPATTTKSLLFNARIAEEVNCLLACR : 57
NM_133433 : ----- : -

PCP0623 : 60          *          80          *          100          *
NM_015384 : DDNLVSQLVHSLNQVSTDHIELKDNLGSDDPEGDIPVLLQAVLARSPNVFREKSMQN : 114
NM_133433 : ----- : -

PCP0623 : 120          *          140          *          160          *
NM_015384 : RYVQSGMMMSQYKLSQNSMHSSPASSNYQQTISHSPSSRFVPPQTSSGNRFMPQQN : 171
NM_133433 : ----- : -

PCP0623 : 180          *          200          *          220
NM_015384 : SPVPSPYAPQSPAGYMPYSHPSYTTTHPQMQQASVSSPIVAGGLRNIHDNKVSGPLS : 228
NM_133433 : ----- : -

PCP0623 : *          240          *          260          *          280
NM_015384 : GNSANHHADNPRHGSSDYHLHVMVHRLSSDDGDSSTMRNAASFPLRSPQPVCSPAGE : 285
NM_133433 : ----- : -

PCP0623 : *          300          *          320          *          340
NM_015384 : GTPKGSRPPLILQSQSLPCSSPRDVPDPDILLDSPEKQKKQKKMKLGKDEKEQSEKA : 342
NM_133433 : ----- : -

PCP0623 : *          360          *          380          *          40
NM_015384 : AMYDISSPSKSDSTKLTLRLSRVRSSDMDQQEDMISGVENSNVSENDIPFNVQYPGQ : 399
NM_133433 : ----- : -

PCP0623 : 0          *          420          *          440          *
NM_015384 : TSKTPITPDINRPLNAAQCLSQEQTAFLPANQVPVLQQNTSVAAKQPQTSVVQNG : 456
NM_133433 : ----- : -

PCP0623 : 460          *          480          *          500          *
NM_015384 : QQISQQGPIYDEVELDALAETIERIERESAIERERFSKEVQDKDKPLKKRKQDSYPQE : 513
NM_133433 : ----- : -

PCP0623 : 520          *          540          *          560          *
NM_015384 : AGGATGGNRPASQETGSTGNGSRPALMVSIDLHQAGRVDSQASITQSDSIKKPEEI : 570
NM_133433 : -----MVSIDLHQAGRVDSQASITQSDSIKKPEEI : 31
NM_133433 : -----MVSIDLHQAGRVDSQASITQSDSIKKPEEI : 31

PCP0623 : 580          *          600          *          620
NM_015384 : KQCNDAPVSVLQEDIVGSLKSTPENHPETPKKKSDELSKSEMKSRLAESKPNE : 627
NM_133433 : KQCNDAPVSVLQEDIVGSLKSTPENHPETPKKKSDELSKSEMKSRLAESKPNE : 88
NM_133433 : KQCNDAPVSVLQEDIVGSLKSTPENHPETPKKKSDELSKSEMKSRLAESKPNE : 88

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FIG. 4A

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      *           640           *           660           *           680
PCP0623 : NRLVETKSSSENKLETKVETQTEELKQNESRTTECKQNESTIVEPKQENRLSDTKPN : 684
NM_015384 : NRLVETKSSSENKLETKVETQTEELKQNESRTTECKQNESTIVEPKQENRLSDTKPN : 145
NM_133433 : NRLVETKSSSENKLETKVETQTEELKQNESRTTECKQNESTIVEPKQENRLSDTKPN : 145

      *           700           *           720           *           740
PCP0623 : DNKQNNGRSETTKSRPETPKQKGESRPETPKQKSDGHPETPKQKGDGRPETPKQKGE : 741
NM_015384 : DNKQNNGRSETTKSRPETPKQKGESRPETPKQKSDGHPETPKQKGDGRPETPKQKGE : 202
NM_133433 : DNKQNNGRSETTKSRPETPKQKGESRPETPKQKSDGHPETPKQKGDGRPETPKQKGE : 202

      *           760           *           780           *           800
PCP0623 : SRPETPKQKNEGRPETPKHRHDMNRDSGKPSSTEKKPEVSKHKQDTKSDSPRLKSERA : 798
NM_015384 : SRPETPKQKNEGRPETPKHRHDMNRDSGKPSSTEKKPEVSKHKQDTKSDSPRLKSERA : 259
NM_133433 : SRPETPKQKNEGRPETPKHRHDMNRDSGKPSSTEKKPEVSKHKQDTKSDSPRLKSERA : 259

      00           *           820           *           840           *
PCP0623 : EALKQRPDGRSVSESLRRDHDKQKSDDRGSESRHRGDSRVRRPETLRSSSRNEHG : 855
NM_015384 : EALKQRPDGRSVSESLRRDHDKQKSDDRGSESRHRGDSRVRRPETLRSSSRNEHG : 316
NM_133433 : EALKQRPDGRSVSESLRRDHDKQKSDDRGSESRHRGDSRVRRPETLRSSSRNEHG : 316

      860           *           880           *           900           *
PCP0623 : IKSDSSKTDKLERKHRHESGDSRERPSSGEQKSRPDSPRVKQGDSDNKSRSDDLGFKS : 912
NM_015384 : IKSDSSKTDKLERKHRHESGDSRERPSSGEQKSRPDSPRVKQGDSDNKSRSDDLGFKS : 373
NM_133433 : IKSDSSKTDKLERKHRHESGDSRERPSSGEQKSRPDSPRVKQGDSDNKSRSDDLGFKS : 373

      920           *           940           *           960
PCP0623 : PTSDDKRTTEGNKSKVDTNKAHPDNKAFFPSYLLGGRSGALKNFVLPKIKRDKDGNV : 969
NM_015384 : PTSDDKRTTEGNKSKVDTNKAHPDNKAFFPSYLLGGRSGALKNFVLPKIKRDKDGNV : 430
NM_133433 : PTSDDKRTTEGNKSKVDTNKAHPDNKAFFPSYLLGGRSGALKNFVLPKIKRDKDGNV : 430

      *           980           *           1000           *           1020
PCP0623 : TQETKKMEMKGEPPDKVEKIGLVEDLNKGAKPVVVLQKLSLDDVQKLIKDRDCKSR : 1026
NM_015384 : TQETKKMEMKGEPPDKVEKIGLVEDLNKGAKPVVVLQKLSLDDVQKLIKDRDCKSR : 487
NM_133433 : TQETKKMEMKGEPPDKVEKIGLVEDLNKGAKPVVVLQKLSLDDVQKLIKDRDCKSR : 487

      *           1040           *           1060           *           1080
PCP0623 : SLKPIKNKPSKSNKGSIDQSVLKELPPELLAEIESTMPLCERVMMNKRKRSTVNEKP : 1083
NM_015384 : SLKPIKNKPSKSNKGSIDQSVLKELPPELLAEIESTMPLCERVMMNKRKRSTVNEKP : 544
NM_133433 : SLKPIKNKPSKSNKGSIDQSVLKELPPELLAEIESTMPLCERVMMNKRKRSTVNEKP : 544

      *           1100           *           1120           *           1140
PCP0623 : KYAEISSDEDNDSDEAFESSRKRHKDDDKAWEYEERDRRSSGDHRRSGHSHEGRRS : 1140
NM_015384 : KYAEISSDEDNDSDEAFESSRKRHKDDDKAWEYEERDRRSSGDHRRSGHSHEGRRS : 601
NM_133433 : KYAEISSDEDNDSDEAFESSRKRHKDDDKAWEYEERDRRSSGDHRRSGHSHEGRRS : 601

      *           1160           *           1180           *           1200
PCP0623 : SGGGRYRNRSPPSDSDMEDYSPPPSLSEVARKMKKKKEKQKKRKAYEPKLTPEEMMDSS : 1197
NM_015384 : SGGGRYRNRSPPSDSDMEDYSPPPSLSEVARKMKKKKEKQKKRKAYEPKLTPEEMMDSS : 658
NM_133433 : SGGGRYRNRSPPSDSDMEDYSPPPSLSEVARKMKKKKEKQKKRKAYEPKLTPEEMMDSS : 658

      200           *           1220           *           1240           *
PCP0623 : TFKRFTASIEIILDNLEDMDFATFGDDDEIPQELLGKHQLNELGSESAKIKAMGIM : 1254
NM_015384 : TFKRFTASIEIILDNLEDMDFATFGDDDEIPQELLGKHQLNELGSESAKIKAMGIM : 715
NM_133433 : TFKRFTASIEIILDNLEDMDFATFGDDDEIPQELLGKHQLNELGSESAKIKAMGIM : 715

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FIG. 4B

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1260      *      1280      *      1300      *
PCP0623 : DKLSTDKTVKVLNILEKNIQDGSKLSTLLNHNNDTEEEERLWRDLIMERVTKSADAC : 1311
NM_015384 : DKLSTDKTVKVLNILEKNIQDGSKLSTLLNHNNDTEEEERLWRDLIMERVTKSADAC : 772
NM_133433 : DKLSTDKTVKVLNILEKNIQDGSKLSTLLNHNNDTEEEERLWRDLIMERVTKSADAC : 772

1320      *      1340      *      1360
PCP0623 : LTTINIMTSPNMPKAVYIEDVIERVIQYTKFHLQNTLYPQYDPVYRLDPHGGLSS : 1368
NM_015384 : LTTINIMTSPNMPKAVYIEDVIERVIQYTKFHLQNTLYPQYDPVYRLDPHGGLSS : 829
NM_133433 : LTTINIMTSPNMPKAVYIEDVIERVIQYTKFHLQNTLYPQYDPVYRLDPHGGLSS : 829

*      1380      *      1400      *      1420
PCP0623 : KAKRAKSTHKQRVIVMLYNKVCDIVSSSELLEIQLLTDTTILQVSSMGITPFFVE : 1425
NM_015384 : KAKRAKSTHKQRVIVMLYNKVCDIVSSSELLEIQLLTDTTILQVSSMGITPFFVE : 886
NM_133433 : KAKRAKSTHKQRVIVMLYNKVCDIVSSSELLEIQLLTDTTILQVSSMGITPFFVE : 886

*      1440      *      1460      *      1480
PCP0623 : NVSELQLCAIKLVTAVFSRYEKHRQLILEEIFTSLARLPTSKRSLRNFRNLSSDMDG : 1482
NM_015384 : NVSELQLCAIKLVTAVFSRYEKHRQLILEEIFTSLARLPTSKRSLRNFRNLSSDMDG : 943
NM_133433 : NVSELQLCAIKLVTAVFSRYEKHRQLILEEIFTSLARLPTSKRSLRNFRNLSSDMDG : 943

*      1500      *      1520      *      154
PCP0623 : EPMYIQMVTALVLQLIQCVVHLPSEKDSNAEEDSNKKIDQDVVITNSYETAMRTAQ : 1539
NM_015384 : EPMYIQMVTALVLQLIQCVVHLPSEKDSNAEEDSNKKIDQDVVITNSYETAMRTAQ : 1000
NM_133433 : EPMYIQMVTALVLQLIQCVVHLPSEKDSNAEEDSNKKIDQDVVITNSYETAMRTAQ : 1000

0      *      1560      *      1580      *
PCP0623 : NFLSIFLKKCGSKQGEEDYRPLFENFVQDLLSTVNKPEWPAAELLSLLGRLLVHQF : 1596
NM_015384 : NFLSIFLKKCGSKQGEEDYRPLFENFVQDLLSTVNKPEWPAAELLSLLGRLLVHQF : 1057
NM_133433 : NFLSIFLKKCGSKQGEEDYRPLFENFVQDLLSTVNKPEWPAAELLSLLGRLLVHQF : 1057

1600      *      1620      *      1640      *
PCP0623 : SNKSTEMALRVASLDYLGTVAAARLRKDAVTSKMDQGSIERILKQVSGGEDEIQQLQK : 1653
NM_015384 : SNKSTEMALRVASLDYLGTVAAARLRKDAVTSKMDQGSIERILKQVSGGEDEIQQLQK : 1114
NM_133433 : SNKSTEMALRVASLDYLGTVAAARLRKDAVTSKMDQGSIERILKQVSGGEDEIQQLQK : 1114

1660      *      1680      *      1700      *
PCP0623 : ALLDYLDENTETDPSLVFSRKFYIAQWFRDTTLETEKAMKSQKDEESSEGTHHAKEI : 1710
NM_015384 : ALLDYLDENTETDPSLVFSRKFYIAQWFRDTTLETEKAMKSQKDEESSEGTHHAKEI : 1171
NM_133433 : ALLDYLDENTETDPSLVFSRKFYIAQWFRDTTLETEKAMKSQKDEESSEGTHHAKEI : 1171

1720      *      1740      *      1760
PCP0623 : ETTGQIMHRAENRKKFLRSIIKTTSPQFSTLKMNSDTVYDDACLIVRYLASMRPFA : 1767
NM_015384 : ETTGQIMHRAENRKKFLRSIIKTTSPQFSTLKMNSDTVYDDACLIVRYLASMRPFA : 1228
NM_133433 : ETTGQIMHRAENRKKFLRSIIKTTSPQFSTLKMNSDTVYDDACLIVRYLASMRPFA : 1228

*      1780      *      1800      *      1820
PCP0623 : QSFDIYLTQILRVLGENAIAVRTRKAMKCLSEVVAVDPSILARLDMQRGVHGRLMDNS : 1824
NM_015384 : QSFDIYLTQILRVLGENAIAVRTRKAMKCLSEVVAVDPSILARLDMQRGVHGRLMDNS : 1285
NM_133433 : QSFDIYLTQILRVLGENAIAVRTRKAMKCLSEVVAVDPSILARLDMQRGVHGRLMDNS : 1285

*      1840      *      1860      *      1880
PCP0623 : TSVREA AVELLGRFVLCRPQLAEQYDMLIERILDGTGISVRKRVIKILRDICIEOPT : 1881
NM_015384 : TSVREA AVELLGRFVLCRPQLAEQYDMLIERILDGTGISVRKRVIKILRDICIEOPT : 1342
NM_133433 : TSVREA AVELLGRFVLCRPQLAEQYDMLIERILDGTGISVRKRVIKILRDICIEOPT : 1342

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FIG. 4C

		*                    1900                    *                    1920                    *                    19	
PCP0623	:	FPKITEMCVKMIRRVNDEEGIKLVNETFQKLWFTPTPHNDKEAMTRKILNITDVVA	: 1938
NM_015384	:	FPKITEMCVKMIRRVNDEEGIKLVNETFQKLWFTPTPHNDKEAMTRKILNITDVVA	: 1399
NM_133433	:	FPKITEMCVKMIRRVNDEEGIKLVNETFQKLWFTPTPHNDKEAMTRKILNITDVVA	: 1399
		40                    *                    1960                    *                    1980                    *	
PCP0623	:	ACRDTGYDWEQQLLQNLKSEEDSSYKPVKKACTQLVDNLVEHILKYEESLADSDNK	: 1995
NM_015384	:	ACRDTGYDWEQQLLQNLKSEEDSSYKPVKKACTQLVDNLVEHILKYEESLADSDNK	: 1456
NM_133433	:	ACRDTGYDWEQQLLQNLKSEEDSSYKPVKKACTQLVDNLVEHILKYEESLADSDNK	: 1456
		2000                    *                    2020                    *                    2040                    *	
PCP0623	:	GVNSGRLVACITTLFLFSKIRPQLMVKHAMTMQPYLTTCSTQNDFMVICNVAKILE	: 2052
NM_015384	:	GVNSGRLVACITTLFLFSKIRPQLMVKHAMTMQPYLTTCSTQNDFMVICNVAKILE	: 1513
NM_133433	:	GVNSGRLVACITTLFLFSKIRPQLMVKHAMTMQPYLTTCSTQNDFMVICNVAKILE	: 1513
		2060                    *                    2080                    *                    2100	
PCP0623	:	LVVPLNEHPSETFLATIEEDLMKLIICYGMTVVQHCVSCLGAVVNKVTQNFKEVWAC	: 2109
NM_015384	:	LVVPLNEHPSETFLATIEEDLMKLIICYGMTVVQHCVSCLGAVVNKVTQNFKEVWAC	: 1570
NM_133433	:	LVVPLNEHPSETFLATIEEDLMKLIICYGMTVVQHCVSCLGAVVNKVTQNFKEVWAC	: 1570
		*                    2120                    *                    2140                    *                    2160	
PCP0623	:	FNRYYGAIKSLKSKHQEDPNNTSLLTNKPALLRSLFTVGALCRHFDLEDKFGNSK	: 2166
NM_015384	:	FNRYYGAIKSLKSKHQEDPNNTSLLTNKPALLRSLFTVGALCRHFDLEDKFGNSK	: 1627
NM_133433	:	FNRYYGAIKSLKSKHQEDPNNTSLLTNKPALLRSLFTVGALCRHFDLEDKFGNSK	: 1627
		*                    2180                    *                    2200                    *                    2220	
PCP0623	:	VNIKDKVLELLMYFTKHSDEEVQTKAIGLGFAFIQHPSLMFEQEVKNLYNNILSDK	: 2223
NM_015384	:	VNIKDKVLELLMYFTKHSDEEVQTKAIGLGFAFIQHPSLMFEQEVKNLYNNILSDK	: 1684
NM_133433	:	VNIKDKVLELLMYFTKHSDEEVQTKAIGLGFAFIQHPSLMFEQEVKNLYNNILSDK	: 1684
		*                    2240                    *                    2260                    *                    2280	
PCP0623	:	NSSVNLKIQVLKNLQTYLQEDTRMQQADRDWKKVAKQEDLKEMGDVSSGMSSSIMQ	: 2280
NM_015384	:	NSSVNLKIQVLKNLQTYLQEDTRMQQADRDWKKVAKQEDLKEMGDVSSGMSSSIMQ	: 1741
NM_133433	:	NSSVNLKIQVLKNLQTYLQEDTRMQQADRDWKKVAKQEDLKEMGDVSSGMSSSIMQ	: 1741
		*                    2300                    *                    2320                    *                    2	
PCP0623	:	LYLKQVLEAFFHTQSSVRHFALNVIALTLNQGLIHPVQCVPYLIAMGTDPEPAMRNK	: 2337
NM_015384	:	LYLKQVLEAFFHTQSSVRHFALNVIALTLNQGLIHPVQCVPYLIAMGTDPEPAMRNK	: 1798
NM_133433	:	LYLKQVLEAFFHTQSSVRHFALNVIALTLNQGLIHPVQCVPYLIAMGTDPEPAMRNK	: 1798
		340                    *                    2360                    *                    2380                    *	
PCP0623	:	ADQQLVEIDKKYAGFIHMKAVAGMKMSYQVQQAINTCLKDPVRGFRQDESSALCSH	: 2394
NM_015384	:	ADQQLVEIDKKYAGFIHMKAVAGMKMSYQVQQAINTCLKDPVRGFRQDESSALCSH	: 1855
NM_133433	:	ADQQLVEIDKKYAGFIHMKAVAGMKMSYQVQQAINTCLKDPVRGFRQDESSALCSH	: 1855
		2400                    *                    2420                    *                    2440                    *	
PCP0623	:	LYSMIRGNRQHRRAFILISLLNLFDDTAKTDVMTLLYIADNLACFPYQTQEEPLFIMH	: 2451
NM_015384	:	LYSMIRGNRQHRRAFILISLLNLFDDTAKTDVMTLLYIADNLACFPYQTQEEPLFIMH	: 1912
NM_133433	:	LYSMIRGNRQHRRAFILISLLNLFDDTAKTDVMTLLYIADNLACFPYQTQEEPLFIMH	: 1912
		2460                    *                    2480                    *                    2500	
PCP0623	:	HIDITLSVSGSNLLQSFKESMVKDKRKERKSSPSKENESSDSEEEVSRPRKSRKRV	: 2508
NM_015384	:	HIDITLSVSGSNLLQSFKESMVKDKRKERKSSPSKENESSDSEEEVSRPRKSRKRV	: 1969
NM_133433	:	HIDITLSVSGSNLLQSFKESMVKDKRKERKSSPSKENESSDSEEEVSRPRKSRKRV	: 1969

FIG. 4D



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      *      2520      *      2540      *      2560
PCP0623 : SDSDSDEDDINSVMKCLPENSAPLIEFANVSQGILLLLMLKQHLKNLCGFSDSKIQ : 2565
NM_015384 : SDSDSDEDDINSVMKCLPENSAPLIEFANVSQGILLLLMLKQHLKNLCGFSDSKIQ : 2026
NM_133433 : SDSDSDEDDINSVMKCLPENSAPLIEFANVSQGILLLLMLKQHLKNLCGFSDSKIQ : 2026

      *      2580      *      2600      *      2620
PCP0623 : KYSPSESAKVYDKAINRKTGVHFHPKQTLDFLRSDMANSKITEEVKRSIVKQYLDFFK : 2622
NM_015384 : KYSPSESAKVYDKAINRKTGVHFHPKQTLDFLRSDMANSKITEEVKRSIVKQYLDFFK : 2083
NM_133433 : KYSPSESAKVYDKAINRKTGVHFHPKQTLDFLRSDMANSKITEEVKRSIVKQYLDFFK : 2083

      *      2640      *      2660      *      268
PCP0623 : LLMEHLDPDEEEEEGEVSASTNARNKAITSLGGGSPKNNTAAETEDDES DGEDRGG : 2679
NM_015384 : LLMEHLDPDEEEEEGEVSASTNARNKAITSLGGGSPKNNTAAETEDDES DGEDRGG : 2140
NM_133433 : LLMEHLDPDEEEEEGEVSASTNARNKAITSLGGGSPKNNTAAETEDDES DGEDRGG : 2140

      0      *      2700      *      2720      *
PCP0623 : GTSG RR ----- : 2697
NM_015384 : GTSG RR ----- : 2158
NM_133433 : GTSGSLRRSKRNSDSTELAAQMNESVDVMDVIAICCPKYKDRPQIARVVQKTSSGFS : 2197

      2740      *      2760      *      2780      *
PCP0623 : ----- : -
NM_015384 : ----- : -
NM_133433 : VQWMAGSYSGSWTEAKRRDGRKLVPWVDTIKESDIIYKKIALTSANKLTNKVVQTLR : 2254

      2800
PCP0623 : ----- : -
NM_015384 : ----- : -
NM_133433 : SLYAAKDGTS : 2265

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FIG. 4E

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      *           20           *           40           *
PCP0815 : MAHESERS-SRIGVPCGEF-DELGGDASEEDHPQVCAKCCAQFTDPTEFLAHQNACS : 55
XM_033473 : MSRRKQRKPQQLISDCEGPSASENGDASEEDHPQVCAKCCAQFTDPTEFLAHQNACS : 57
      M      2R      L      C      P      A      GDASEEDHPQVCAKCCAQFTDPTEFLAHQNACS

      60           *           80           *           100           *
PCP0815 : TDPFVMVIIGGQENPNNSSASSEPRPEGHNNPQVMDTEHSNPPDSGSSVPTDPTWGP : 112
XM_033473 : TDPFVMVIIGGQENPNNSSASSEPRPEGHNNPQVMDTEHSNPPDSGSSVPTDPTWGP : 114
      TDPFVMVIIGGQENPNNSSASSEPRPEGHNNPQVMDTEHSNPPDSGSSVPTDPTWGP

      120           *           140           *           160           *
PCP0815 : ERRGEESGHFLVAATGTAAGGGGLILASPKLGATPLPPESTPAPPPPPPPPPPG : 169
XM_033473 : ERRGEESGHFLVAATGTAAGGGGLILASPKLGATPLPPESTPAPPPPPPPPPPG : 171
      ERRGEES GHFLVAATGTAAGGGGLILASEPKLGATPLPPESTPAPPPPPPPPPPG

      180           *           200           *           220
PCP0815 : VSGSHLNIPILILEELRVLQQRQIHQMOMTEQICRQVLLGSLGQTVGAPASPSELPG : 226
XM_033473 : VSGSHLNIPILILEELRVLQQRQIHQMOMTEQICRQVLLGSLGQTVGAPASPSELPG : 228
      VSGSHLNIPILILEELRVLQQRQIHQMOMTEQICRQVLLGSLGQTVGAPASPSELPG

      *           240           *           260           *           280
PCP0815 : TGTASSTKPLPLFSPKIPVQTSKTLASSSSSSSSSSGAETPKQAFFHLYHPLGSQH : 283
XM_033473 : TGTASSTKPLPLFSPKIPVQTSKTLASSSSSSSSSSGAETPKQAFFHLYHPLGSQH : 285
      TGTASSTKPLPLFSPKIPVQTSKTLASSSSSSSSSSGAETPKQAFFHLYHPLGSQH

      *           300           *           320           *           340
PCP0815 : PFSAGGVGRSHKPTPAPSPALPGSTDQLIASPHLAFPSTGLLAAQCLGAARGLEAT : 340
XM_033473 : PFSAGGVGRSHKPTPAPSPALPGSTDQLIASPHLAFPSTGLLAAQCLGAARGLEAT : 342
      PFSAGGVGRSHKPTPAPSPALPGSTDQLIASPHLAFPSTGLLAAQCLGAARGLEAT

      *           360           *           380           *           40
PCP0815 : ASPGLLKPKNGSGELSYGEVMGPLEKPGGRHKCRFCAKVFSGSDSALQIHLRSHTGER : 397
XM_033473 : ASPGLLKPKNGSGELSYGEVMGPLEKPGGRHKCRFCAKVFSGSDSALQIHLRSHTGER : 399
      ASPGLLKPKNGSGELSYGEVMGPLEKPGGRHKCRFCAKVFSGSDSALQIHLRSHTGER

      0           *           420           *           440           *
PCP0815 : PYKCNVCGNRFTTRGNLKVHFRHREKYPHVQMNPHVPVEHLDYVITSSGLEPYGMSV : 454
XM_033473 : PYKCNVCGNRFTTRGNLKVHFRHREKYPHVQMNPHVPVEHLDYVITSSGLEPYGMSV : 456
      PYKCNVCGNRFTTRGNLKVHFRHREKYPHVQMNPHVPVEHLDYVITSSGLEPYGMSV

      460           *           480           *           500           *
PCP0815 : PPEKAEAAAATPGGGVERKPLVASTTALSATESLTLLSTSAGTATAPGLPAFNKFVL : 511
XM_033473 : PPEKAEAAAATPGGGVERKPLVASTTALSATESLTLLSTSAGTATAPGLPAFNKFVL : 513
      PPEKAEAAAATPGGGVERKPLVASTTALSATESLTLLSTSAGTATAPGLPAFNKFVL

      520           *           540           *           560           *
PCP0815 : MKAVEPKNKADENTPPGSEGSASISGVAESSTATRMQLSKLVTSLPSWALLTNHFKST : 568
XM_033473 : MKAVEPKNKADENTPPGSEGSASISGVAESSTATRMQLSKLVTSLPSWALLTNHFKST : 570
      MKAVEPKNKADENTPPGSEGSASISGVAESSTATRMQLSKLVTSLPSWALLTNHFKST

      580           *           600           *           620
PCP0815 : GSFFPPYVLEPLGASPSETSKLQQLVEKIDRQGAVAVTSAASGAPTTSAAPAPSSSAS : 625
XM_033473 : GSFFPPYVLEPLGASPSETSKLQQLVEKIDRQGAVAVTSAASGAPTTSAAPAPSSSAS : 627
      GSFFPPYVLEPLGASPSETSKLQQLVEKIDRQGAVAVTSAASGAPTTSAAPAPSSSAS

      *           640           *           660           *           680
PCP0815 : SGPNQCVICLRVLSCPRALRLHYQHGGGERPFKCKVCGRAFSTRGNLRAHFVGHKAS : 682
XM_033473 : SGPNQCVICLRVLSCPRALRLHYQHGGGERPFKCKVCGRAFSTRGNLRAHFVGHKAS : 684
      SGPNQCVICLRVLSCPRALRLHYQHGGGERPFKCKVCGRAFSTRGNLRAHFVGHKAS

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FIG. 5A

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      *           700           *           720           *           740
PCP0815 : PAARAQNSCPICQKKFTNAVTLQQHVRMHLGGQIPNGGTALPEGGGAAQENGSEQST : 739
XM_033473 : PAARAQNSCPICQKKFTNAVTLQQHVRMHLGGQIPNGGTALPEGGGAAQENGSEQST : 741
      PAARAQNSCPICQKKFTNAVTLQQHVRMHLGGQIPNGGTALPEGGGAAQENGSEQST

      *           760           *           780           *           8
PCP0815 : VSGAGSFPQQSQQPSPEEELSEEEEEDEEEEEEDVTDEDSLARGSGESGGEKAISV : 796
XM_033473 : VSGAGSFPQQSQQPSPEEELSEEEEEDEEEEEEDVTDEDSLARGSGESGGEKAISV : 798
      VSGAGSFPQQSQQPSPEEELSEEEEEDEEEEEEDVTDEDSLARGSGESGGEKAISV

      00           *           820           *           840           *
PCP0815 : RGDSEEEASGAEEEVGTAAAAATAGKEMDSNEKTTQQSSLPPPPPPDSLDQPOPMEQG : 853
XM_033473 : RGDSEEEASGAEEEVGTAAAAATAGKEMDSNEKTTQQSSLPPPPPPDSLDQPOPMEQG : 855
      RGDSEEEASGAEEEVGTAAAAATAGKEMDSNEKTTQQSSLPPPPPPDSLDQPOPMEQG

      860           *           880           *           900           *
PCP0815 : SSGVLGGKEEGGKPERSSSPASALTPEGEATSVTLVEELSLQEAMRKEPGESSSRKA : 910
XM_033473 : SSGVLGGKEEGGKPERSSSPASALTPEGEATSVTLVEELSLQEAMRKEPGESSSRKA : 912
      SSGVLGGKEEGGKPERSSSPASALTPEGEATSVTLVEELSLQEAMRKEPGESSSRKA

      920           *           940           *           960
PCP0815 : CEVCGQAFPSQAALAEHQKTHPKEGPLFTCVFCRQGFLERATLKKHMLLAHHNQYV : 967
XM_033473 : CEVCGQAFPSQAALAEHQKTHPKEGPLFTCVFCRQGFLERATLKKHMLLAHHQVQPF : 969
      CEVCGQAFPSQAALAEHQKTHPKEGPLFTCVFCRQGFLERATLKKHMLLAHHQ Q

      *           980           *           1000           *           1020
PCP0815 : AFLSNGLEPMKFWNSSSTSTTTPSLAPPVL-FGLGTVAGKVPPTM----- : 1010
XM_033473 : A-----PHGPNIAALSLV-PGCSPSITSTGLSPFPRKDDPTIP----- : 1007
      A P P N S P P 6 GL K PT6

      *           1040           *           1060           *
PCP0815 : -----GSREAKEKTAPLLFQPPAPKAVPEKPIIDKK : 1041
XM_033473 : ----- : -

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FIG. 5B

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      *           20           *           40           *
PCP0840 : MTGIAAASFFSNTCRFGGCGLHFPTLADLIEHIEDNHIDTDPRVLEKQELQQPTYVAL : 58
XM_059862 : -----

      60           *           80           *           100           *
PCP0840 : SYINRFMTDAARREQESLKKKIQPKLSLTLSVVSRGNVSTPPRHSSGSLTPPVTPPI : 116
XM_059862 : -----

      120           *           140           *           160           *
PCP0840 : TPSSSFRSSTP-TGSEYDEEEVDYEEESDSDESWTTESAISSEAILSSMCMNGGEEKPF : 173
XM_059862 : -----MNAAPRICSEYDEEEVDYEEESDSDESWTTESAISSEAILSSMCMNGGEEKPF : 51
              P      SEYDEEEVDYEEESDSDESWTTESAISSEAILSSMCMNGGEEKPF

      180           *           200           *           220           *
PCP0840 : ACPVPGCKKRYKNVNGIKYHAKNGHRTQIRVRKPFKCRGKSYKTAQGLRHHTINFHP : 231
XM_059862 : ACPVPGCKKRYKNVNGIKYHAKNGHRTQIRVRKPFKCRGKSYKTAQGLRHHTINFHP : 109
              ACPVPGCKKRYKNVNGIKYHAKNGHRTQIRVRKPFKCRGKSYKTAQGLRHHTINFHP

      240
PCP0840 : PVSAEIIIRKMQQ : 243
XM_059862 : PVSAEIIIRKMQQ : 121
              PVSAEIIIRKMQQ

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FIG. 6

PCP0424A	:	MACREGAGSRRARSNGCRLPRRGRRRRGRRRTVGPPIHCRGRRALGPRVFRVMEALI	:	58
NM_012062	:	-----MEALI	:	5
PCP0424B	:	MACREGAGSRRARSNGCRLPRRGRRRRGRRRTVGPPIHCRGRRALGPRVFRVMEALI	:	58
NM_012063	:	-----MEALI	:	5
PCP0424C	:	MACREGAGSRRARSNGCRLPRRGRRRRGRRRTVGPPIHCRGRRALGPRVFRVMEALI	:	58
NM_005690	:	-----MEALI	:	5
		MEALI		
PCP0424A	:	60 * 80 * 100 * PVINKLQDVNTVGADIIQLPQIVVVGTSQSSGKSSVLESVLVGRDLLPRGTGIVTRRPL	:	116
NM_012062	:	PVINKLQDVNTVGADIIQLPQIVVVGTSQSSGKSSVLESVLVGRDLLPRGTGIVTRRPL	:	63
PCP0424B	:	PVINKLQDVNTVGADIIQLPQIVVVGTSQSSGKSSVLESVLVGRDLLPRGTGIVTRRPL	:	116
NM_012063	:	PVINKLQDVNTVGADIIQLPQIVVVGTSQSSGKSSVLESVLVGRDLLPRGTGIVTRRPL	:	63
PCP0424C	:	PVINKLQDVNTVGADIIQLPQIVVVGTSQSSGKSSVLESVLVGRDLLPRGTGIVTRRPL	:	116
NM_005690	:	PVINKLQDVNTVGADIIQLPQIVVVGTSQSSGKSSVLESVLVGRDLLPRGTGIVTRRPL	:	63
		PVINKLQDVNTVGADIIQLPQIVVVGTSQSSGKSSVLESVLVGRDLLPRGTGIVTRRPL		
PCP0424A	:	120 * 140 * 160 * ILQLVHVTQEDKRKTTGEENGVEAEWKGFLHTKNKLYTDFDEIRQEIENETERISGN	:	174
NM_012062	:	ILQLVHVTQEDKRKTTGEENGVEAEWKGFLHTKNKLYTDFDEIRQEIENETERISGN	:	121
PCP0424B	:	ILQLVHVTQEDKRKTTGEENGVEAEWKGFLHTKNKLYTDFDEIRQEIENETERISGN	:	174
NM_012063	:	ILQLVHVTQEDKRKTTGEENGVEAEWKGFLHTKNKLYTDFDEIRQEIENETERISGN	:	121
PCP0424C	:	ILQLVHVTQEDKRKTTGEENGVEAEWKGFLHTKNKLYTDFDEIRQEIENETERISGN	:	174
NM_005690	:	ILQLVHVTQEDKRKTTGEENGVEAEWKGFLHTKNKLYTDFDEIRQEIENETERISGN	:	121
		ILQLVHVTQEDKRKTTGEENGVEAEWKGFLHTKNKLYTDFDEIRQEIENETERISGN		
PCP0424A	:	180 * 200 * 220 * NKGVSPEPIHLKIFSPNVVNLTLVDLPGMTKVPVGDQPKDIELQIRELILRFISNPNS	:	232
NM_012062	:	NKGVSPEPIHLKIFSPNVVNLTLVDLPGMTKVPVGDQPKDIELQIRELILRFISNPNS	:	179
PCP0424B	:	NKGVSPEPIHLKIFSPNVVNLTLVDLPGMTKVPVGDQPKDIELQIRELILRFISNPNS	:	232
NM_012063	:	NKGVSPEPIHLKIFSPNVVNLTLVDLPGMTKVPVGDQPKDIELQIRELILRFISNPNS	:	179
PCP0424C	:	NKGVSPEPIHLKIFSPNVVNLTLVDLPGMTKVPVGDQPKDIELQIRELILRFISNPNS	:	232
NM_005690	:	NKGVSPEPIHLKIFSPNVVNLTLVDLPGMTKVPVGDQPKDIELQIRELILRFISNPNS	:	179
		NKGVSPEPIHLKIFSPNVVNLTLVDLPGMTKVPVGDQPKDIELQIRELILRFISNPNS		
PCP0424A	:	240 * 260 * 280 * IILAVTAANTDMATSEALKISREVDPDGRTLAVITKLDLMDAGTDAMDVLMDGRVIPV	:	290
NM_012062	:	IILAVTAANTDMATSEALKISREVDPDGRTLAVITKLDLMDAGTDAMDVLMDGRVIPV	:	237
PCP0424B	:	IILAVTAANTDMATSEALKISREVDPDGRTLAVITKLDLMDAGTDAMDVLMDGRVIPV	:	290
NM_012063	:	IILAVTAANTDMATSEALKISREVDPDGRTLAVITKLDLMDAGTDAMDVLMDGRVIPV	:	237
PCP0424C	:	IILAVTAANTDMATSEALKISREVDPDGRTLAVITKLDLMDAGTDAMDVLMDGRVIPV	:	290
NM_005690	:	IILAVTAANTDMATSEALKISREVDPDGRTLAVITKLDLMDAGTDAMDVLMDGRVIPV	:	237
		IILAVTAANTDMATSEALKISREVDPDG RTLAVITKLDLMDAGTDAMDVLMDGRVIPV		
PCP0424A	:	300 * 320 * 340 * KLGIIIGVVNRSQDINNKKSVTDSIRDEYAFLOKKYPSLANRNGTKYLARTLNRLMH	:	348
NM_012062	:	KLGIIIGVVNRSQDINNKKSVTDSIRDEYAFLOKKYPSLANRNGTKYLARTLNRLMH	:	295
PCP0424B	:	KLGIIIGVVNRSQDINNKKSVTDSIRDEYAFLOKKYPSLANRNGTKYLARTLNRLMH	:	348
NM_012063	:	KLGIIIGVVNRSQDINNKKSVTDSIRDEYAFLOKKYPSLANRNGTKYLARTLNRLMH	:	295
PCP0424C	:	KLGIIIGVVNRSQDINNKKSVTDSIRDEYAFLOKKYPSLANRNGTKYLARTLNRLMH	:	348
NM_005690	:	KLGIIIGVVNRSQDINNKKSVTDSIRDEYAFLOKKYPSLANRNGTKYLARTLNRLMH	:	295
		KLGIIIGVVNRSQDINNKKSVTDSIRDEYAFLOKKYPSLANRNGTKYLARTLNRLMH		
PCP0424A	:	* 360 * 380 * 400 * HIRDCLPELKTRINVLAAQYQSLNLSYGEPVDDKSATLLQLITKFATEYCNITIEGTAK	:	406
NM_012062	:	HIRDCLPELKTRINVLAAQYQSLNLSYGEPVDDKSATLLQLITKFATEYCNITIEGTAK	:	353
PCP0424B	:	HIRDCLPELKTRINVLAAQYQSLNLSYGEPVDDKSATLLQLITKFATEYCNITIEGTAK	:	406
NM_012063	:	HIRDCLPELKTRINVLAAQYQSLNLSYGEPVDDKSATLLQLITKFATEYCNITIEGTAK	:	353
PCP0424C	:	HIRDCLPELKTRINVLAAQYQSLNLSYGEPVDDKSATLLQLITKFATEYCNITIEGTAK	:	406
NM_005690	:	HIRDCLPELKTRINVLAAQYQSLNLSYGEPVDDKSATLLQLITKFATEYCNITIEGTAK	:	353
		HIRDCLPELKTRINVLAAQYQSLNLSYGEPVDDKSATLLQLITKFATEYCNITIEGTAK		

FIG. 7A

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      *           420           *           440           *           460
PCP0424A : YIETSELCCGARICYIFHETFGRTLESVDPLGGLNTIDILTAIRNATGPRPALFVPEV : 464
NM_012062 : YIETSELCCGARICYIFHETFGRTLESVDPLGGLNTIDILTAIRNATGPRPALFVPEV : 411
PCP0424B : YIETSELCCGARICYIFHETFGRTLESVDPLGGLNTIDILTAIRNATGPRPALFVPEV : 464
NM_012063 : YIETSELCCGARICYIFHETFGRTLESVDPLGGLNTIDILTAIRNATGPRPALFVPEV : 411
PCP0424C : YIETSELCCGARICYIFHETFGRTLESVDPLGGLNTIDILTAIRNATGPRPALFVPEV : 464
NM_005690 : YIETSELCCGARICYIFHETFGRTLESVDPLGGLNTIDILTAIRNATGPRPALFVPEV : 411
      YIETSELCCGARICYIFHETFGRTLESVDPLGGLNTIDILTAIRNATGPRPALFVPEV

      *           480           *           500           *           520
PCP0424A : SFELLVKRQIKRLEEPSLRCVELVHEEMQRIIQHCSNYSTQELLRFPKLHDAIVEVVT : 522
NM_012062 : SFELLVKRQIKRLEEPSLRCVELVHEEMQRIIQHCSNYSTQELLRFPKLHDAIVEVVT : 469
PCP0424B : SFELLVKRQIKRLEEPSLRCVELVHEEMQRIIQHCSNYSTQELLRFPKLHDAIVEVVT : 522
NM_012063 : SFELLVKRQIKRLEEPSLRCVELVHEEMQRIIQHCSNYSTQELLRFPKLHDAIVEVVT : 469
PCP0424C : SFELLVKRQIKRLEEPSLRCVELVHEEMQRIIQHCSNYSTQELLRFPKLHDAIVEVVT : 522
NM_005690 : SFELLVKRQIKRLEEPSLRCVELVHEEMQRIIQHCSNYSTQELLRFPKLHDAIVEVVT : 469
      SFELLVKRQIKRLEEPSLRCVELVHEEMQRIIQHCSNYSTQELLRFPKLHDAIVEVVT

      *           540           *           560           *           580
PCP0424A : CLLRKRLPVTNEMVHNLVAIELAYINTKHPDFADACGLMNNNIEEQRRNRLARELPSA : 580
NM_012062 : CLLRKRLPVTNEMVHNLVAIELAYINTKHPDFADACGLMNNNIEEQRRNRLARELPSA : 527
PCP0424B : CLLRKRLPVTNEMVHNLVAIELAYINTKHPDFADACGLMNNNIEEQRRNRLARELPSA : 580
NM_012063 : CLLRKRLPVTNEMVHNLVAIELAYINTKHPDFADACGLMNNNIEEQRRNRLARELPSA : 527
PCP0424C : CLLRKRLPVTNEMVHNLVAIELAYINTKHPDFADACGLMNNNIEEQRRNRLARELPSA : 580
NM_005690 : CLLRKRLPVTNEMVHNLVAIELAYINTKHPDFADACGLMNNNIEEQRRNRLARELPSA : 527
      CLLRKRLPVTNEMVHNLVAIELAYINTKHPDFADACGLMNNNIEEQRRNRLARELPSA

      *           600           *           620           *           6
PCP0424A : VSRDK-----SSKVPASALAPASQEPSPAASAEADGKL : 612
NM_012062 : VSRDKSSKVPASALAPASQEPSPAASAEADGK-----L : 559
PCP0424B : VSRDK-----L : 586
NM_012063 : VSRDK-----L : 533
PCP0424C : VSRDK-----L : 585
NM_005690 : VSRDK-----L : 532
      VSRDK

      40           *           660           *           680           *
PCP0424A : IQDSRRETKNVASGGGGVGDGVQEPPTGNWRGMLKTSKAEELLAEKSKPIIMPASP : 670
NM_012062 : IQDSRRETKNVASGGGGVGDGVQEPPTGNWRGMLKTSKAEELLAEKSKPIIMPASP : 617
PCP0424B : IQDSRRETKNVASGGGGVGDGVQEPPTGNWRGMLKTSKAEELLAEKSKPIIMPASP : 644
NM_012063 : IQDSRRETKNVASGGGGVGDGVQEPPTGNWRGMLKTSKAEELLAEKSKPIIMPASP : 591
PCP0424C : -----VASGGGGVGDGVQEPPTGNWRGMLKTSKAEELLAEKSKPIIMPASP : 633
NM_005690 : -----VASGGGGVGDGVQEPPTGNWRGMLKTSKAEELLAEKSKPIIMPASP : 580
      VASGGGGVGDGVQEPPTGNWRGMLKTSKAEELLAEKSKPIIMPASP

      700           *           720           *           740           *
PCP0424A : QKGHAVNLLDVPVPVARKLSAREQRDCEVIERLIKSYFLIVRKNIQDSVPKAVMHFLV : 728
NM_012062 : QKGHAVNLLDVPVPVARKLSAREQRDCEVIERLIKSYFLIVRKNIQDSVPKAVMHFLV : 675
PCP0424B : QKGHAVNLLDVPVPVARKLSAREQRDCEVIERLIKSYFLIVRKNIQDSVPKAVMHFLV : 702
NM_012063 : QKGHAVNLLDVPVPVARKLSAREQRDCEVIERLIKSYFLIVRKNIQDSVPKAVMHFLV : 649
PCP0424C : QKGHAVNLLDVPVPVARKLSAREQRDCEVIERLIKSYFLIVRKNIQDSVPKAVMHFLV : 691
NM_005690 : QKGHAVNLLDVPVPVARKLSAREQRDCEVIERLIKSYFLIVRKNIQDSVPKAVMHFLV : 638
      QKGHAVNLLDVPVPVARKLSAREQRDCEVIERLIKSYFLIVRKNIQDSVPKAVMHFLV

      760           *           780           *           800           *
PCP0424A : NHVKDTLQSELVGQLYKSSLLDDLLTESEDMAQRRKEAADMLKALQGASQIIAEIRET : 786
NM_012062 : NHVKDTLQSELVGQLYKSSLLDDLLTESEDMAQRRKEAADMLKALQGASQIIAEIRET : 733
PCP0424B : NHVKDTLQSELVGQLYKSSLLDDLLTESEDMAQRRKEAADMLKALQGASQIIAEIRET : 760
NM_012063 : NHVKDTLQSELVGQLYKSSLLDDLLTESEDMAQRRKEAADMLKALQGASQIIAEIRET : 707
PCP0424C : NHVKDTLQSELVGQLYKSSLLDDLLTESEDMAQRRKEAADMLKALQGASQIIAEIRET : 749
NM_005690 : NHVKDTLQSELVGQLYKSSLLDDLLTESEDMAQRRKEAADMLKALQGASQIIAEIRET : 696
      NHVKDTLQSELVGQLYKSSLLDDLLTESEDMAQRRKEAADMLKALQGASQIIAEIRET

PCP0424A : HLW : 789
NM_012062 : HLW : 736
PCP0424B : HLW : 763
NM_012063 : HLW : 710
PCP0424C : HLW : 752
NM_005690 : HLW : 699
      HLW

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FIG. 7B

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      *           20           *           40           *           60
PCP0816 : MAEPGSHHLSARVRGRTERRI PRLWRLLWAGTAFQVTQGTGP ELHACK ESEYHYEYTA : 60
XM_042775 : MAEPGSHHLSARVRGRTERRI PRLWRLLWAGTAFQVTQGTGP ELHACK ESEYHYEYTA : 60

      *           80           *           100          *           120
PCP0816 : CDSTGSRWRVAVPHTPGLCTSLPDPVKGT ECFSCNAGEFLDMKDQSC KPCAEG RYSLGT : 120
XM_042775 : CDSTGSRWRVAVPHTPGLCTSLPDPVKGT ECFSCNAGEFLDMKDQSC KPCAEG RYSLGT : 120

      *           140          *           160           *           180
PCP0816 : GIRFDEWDELPHGFASLSANMELDDSA AESTGNCTSSKWVPRGDY IASNTDE CTATL MYA : 180
XM_042775 : GIRFDEWDELPHGFASLSANMELDDSA AESTGNCTSSKWVPRGDY IASNTDE CTATL MYA : 180

      *           200          *           220          *           240
PCP0816 : VNLKQSGTVNFEYYPDSSI IFEFFVQNDQC QPNADDSRWMKTTEK GWEFHSVELNR GNN : 240
XM_042775 : VNLKQSGTVNFEYYPDSSI IFEFFVQNDQC QPNADDSRWMKTTEK GWEFHSVELNR GNN : 240

      *           260          *           280           *           300
PCP0816 : VLYWRTTAFSVWTKVPKPV LVRNIAITGVAYTSECF PCKPGTYADK QGSSFCKLCP ANSY : 300
XM_042775 : VLYWRTTAFSVWTKVPKPV LVRNIAIT----- : 267

      *           320          *           340           *           360
PCP0816 : SNKGETSCHQC DDPDKYS EKGSSSCNVRPACTDKDYFY THTACDANGETQLMYK WAKPKIC : 360
XM_042775 : ----- EKGSSSCNVRPACTDKDYFY THTACDANGETQLMYK WAKPKIC : 310

      *           380          *           400           *           420
PCP0816 : SEDLEGAVKLPASGVKTHCPPC NPGF FKTNNSTCQPCPYGSYSNGSDCTRCPAGTEPA VG : 420
XM_042775 : SEDLEGAVKLPASGVKTHCPPC NPGF FKTNNSTCQPCPYGSYSNGSDCTRCPAGTEPA VG : 370

      *           440          *           460           *           480
PCP0816 : FEYKWWNTLPTNMETTVL SGINFEYKGMTGWEVAGDHIYTAAGASDNDFMIL TLVVP GFR : 480
XM_042775 : FEYKWWNTLPTNMETTVL SGINFEYKGMTGWEVAGDHIYTAAGASDNDFMIL TLVVP GFR : 430

      *           500          *           520           *           540
PCP0816 : PPQSV MADTENKEVARITFVFETLCSVNC ELYFMVGVNSRTNTPVETWKGSKGKQSYTYI : 540
XM_042775 : PPQSV MADTENKEVARITFVFETLCSVNC ELYFMVGVNSRTNTPVETWKGSKGKQSYTYI : 490

      *           560          *           580           *           600
PCP0816 : IEENTTTSFTWAFQRTTFHEASRKYTNDVAKIYSINVTNVMNGVAS YCRPCALEASDVGS : 600
XM_042775 : IEENTTTSFTWAFQRTTFHEASRKYTNDVAKIYSINVTNVMNGVAS YCRPCALEASDVGS : 550

      *           620          *           640           *           660
PCP0816 : SCTSCPAGYYIDRDSGTCHSCPTNTILKAHQPYGVQACVPCGPGTKNNKI HSLCYNDCTF : 660
XM_042775 : SCTSCPAGYYIDRDSGTCHSCPTNTILKAHQPYGVQACVPCGPGTKNNKI HSLCYNDCTF : 610

      *           680          *           700           *           720
PCP0816 : SRNTPTRTFNYESALANTVTLAGGP SFTSKGLKYFHHFTLSLCGNQGRKMSVCTDNVTD : 720
XM_042775 : SRNTPTRTFNYESALANTVTLAGGP SFTSKGLKYFHHFTLSLCGNQGRKMSVCTDNVTD : 670

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FIG. 8A

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      *           740           *           760           *           780
PCP0816 : LRIPEGESGFSKSITAYVCQAVIIPPEVTGYKAGVSSQPVSLADRLIGVTTDMTLDGITS : 780
XM_042775 : LRIPEGESGFSKSITAYVCQAVIIPPEVTGYKAGVSSQPVSLADRLIGVTTDMTLDGITS : 730

      *           800           *           820           *           840
PCP0816 : PAELFHLESLGIPDVIFFYRSNDVTQSCSSGRSTTIRVRCSPQKTVPGSLLLPGTCS DGT : 840
XM_042775 : PAELFHLESLGIPDVIFFYRSNDVTQSCSSGRSTTIRVRCSPQKTVPGSLLLPGTCS DGT : 790

      *           860           *           880           *           900
PCP0816 : CDGCNFHFLWESAAACPLCSVADYHAIVSSCVAGIQKTTYVWREPKLCSGGISLPEQRVT : 900
XM_042775 : CDGCNFHFLWESAAACPLCSVADYHAIVSSCVAGIQKTTYVWREPKLCSGGISLPEQRVT : 850

      *           920           *           940           *           960
PCP0816 : ICKTIDFWLKVGISAGTCTAILLTVLTCYFWKKNQKLEYKYSKLV MNATLKDCDLPAADS : 960
XM_042775 : ICKTIDFWLKVGISAGTCTAILLTVLTCYFWKKNQKLEYKYSKLV MNATLKDCDLPAADS : 910

      *           980           *           1000           *
PCP0816 : CAIMEGEDVEDDLIFTSKKSLEFGKIKSFTSKRTEDGFDSVPLKTS SGGPMDL : 1013
XM_042775 : CAIMEGEDVEDDLIFTSKKSLEFGKIKSFTSKQ-P-----APV-TISLSEDS-- : 954

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FIG. 8B



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      *           20           *           40           *           60
PCP0480 : MTMTLHTKASGMALLHQIQGNELEPLNRPQLKIPLERPLGEVYLDSSKPAVYNYPEGAAY : 60
NM_000125 : MTMTLHTKASGMALLHQIQGNELEPLNRPQLKIPLERPLGEVYLDSSKPAVYNYPEGAAY : 60

      *           80           *           100          *           120
PCP0480 : EFNAAAAANAQVYGQTGLPYGPGSEAAAFGSNGLGGFPPLNSVSPSPMLLLHPPPLSFF : 120
NM_000125 : EFNAAAAANAQVYGQTGLPYGPGSEAAAFGSNGLGGFPPLNSVSPSPMLLLHPPPLSPF : 120

      *           140          *           160           *           180
PCP0480 : LQPHGQQVPYYLENEPSGYTVREAGPPAFYRMVLSCGLSSRVSHWMFREFM----- : 171
NM_000125 : LQPHGQQVPYYLENEPSGYTVREAGPPAFYRPNSDNRRQGGRRERLASTNDKGSMAESAK : 180

      *           200          *           220           *           240
PCP0480 : ----- : -
NM_000125 : ETRYCAVCNDYASGYHYGVWSCEGCKAFFKRSIQGHNDYMCPATNQCTIDKNRRKSCQAC : 240

      *           260          *           280           *           300
PCP0480 : ----- : -
NM_000125 : RLRKCYEVGMMKGGIRKDRRGGRMLKHKRQRDDGEGRGEVGSAGDMRAANLWPSPLMIKR : 300

      *           320          *           340           *           360
PCP0480 : ----- : -
NM_000125 : SKKNSLALSILTADQMVSAALLDAEPPILYSEYDPTRPFSSEASMMGLLTNLADRELVHMINW : 360

      *           380          *           400           *           420
PCP0480 : ----- : -
NM_000125 : AKRVPGFVDLTLHDQVHLLECAWLEILMIGLVWRSMEHVPKLLFAPNLLLDRNQGKCEVG : 420

      *           440          *           460           *           480
PCP0480 : ----- : -
NM_000125 : MVEIFDMLLATSSRFRMMNLQGEFVCLKSIILLNSGVYTFLSSTLKSLEEKDHIHRVLD : 480

      *           500          *           520           *           540
PCP0480 : ----- : -
NM_000125 : KITDTLIHLMAGLTLQQQHQRLAQLLLILSHIRHMSNKGMEHLYSMKCKNVVPLYDLL : 540

      *           560          *           580           *
PCP0480 : ----- : -
NM_000125 : LEMLD AHLHAPTSRGGASVEETDQSHLATAGSTSSHSLQKYYITGEAEGFPATV : 595

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FIG. 9

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      *           20           *           40           *           60
XM_094949 : -----MIKDWTKEHVKKWVNEDLKINEQYGQILLSEEV TGLVLQELTEKDLVEMGL : 51
PC0382    : MSKQVSLPEMIKDWTKEHVKKWVNEDLKINEQYGQILLSEEV TGLVLQELTEKDLVEMGL : 60

      *           80           *           100          *           120
XM_094949 : PWGPALLIKRSYNKLNSKSPESDNHDPGQLDNSKPSKTEHQKNPKHTKKEEENSMSNNID : 111
PC0382    : PWGPALLIKRSYNKLNSKSPESDNHDPGQLDNSKPSKTEHQKNPKHTKKEEENSMSNNID : 120

      *           140          *           160          *           180
XM_094949 : YDPREIRDIKQEE SILMKENVLDEVANAKHKKKGLKPEQLTCMPYPFDQFHDSHRYIEH : 171
PC0382    : YDPREIRDIKQEE SILMKENVLDEVANAKHKKKGLKPEQLTCMPYPFDQFHDSHRYIEH : 180

      *           200          *           220          *           240
XM_094949 : YTLQPETGALNLDIPIHEFKALTNTETATEVDIKMKFSNEVFRFASACMNSRTNGTTHFG : 231
PC0382    : YTLQPETGALNLDIPIHEFKALTNTETATEVDIKMKFSNEVFRFASACMNSRTNGTTHFG : 240

      *           260          *           280          *           300
XM_094949 : VKDKPHGEIVGVKITSKAAFIDHFNVMIKKYFESEINEAKKCIREPRFVEVLLQNNTPS : 291
PC0382    : VKDKPHGEIVGVKITSKAAFIDHFNVMIKKYFESEINEAKKCIREPRFVEVLLQNNTPS : 300

      *           320          *           340          *           360
XM_094949 : DRFVIEVDITPKHSICNDKYFYIQMQICKDKIWKQNQLSLFVREGASSRDILANSKQRD : 351
PC0382    : DRFVIEVDITPKHSICNDKYFYIQMQICKDKIWKQNQLSLFVREGASSRDILANSKQRD : 360

      *           380          *           400          *           420
XM_094949 : VDFKAFLQNLKSLVASRKEAEEYGMKAMKKESEGLKLVKLLIGNRDSLDSYDWWYILV : 411
PC0382    : VDFKAFLQNLKSLVASRKEAEEYGMKAMKKESEGLKLVKLLIGNRDSLDSYDWWYILV : 420

      *           440          *           460          *           480
XM_094949 : TNKCHPNQIKHLDLKEIKWFAVLEFDPESMINGVVKAYKESRVANLHFPNQYEDKTTNM : 471
PC0382    : TNKCHPNQIKHLDLKEIKWFAVLEFDPESMINGVVKAYKESRVANLHFPNQYEDKTTNM : 480

      *           500          *           520          *           540
XM_094949 : WEKISTLNLYQOPSWIFCNGRSDLKSETYKPLEPHLWQERASEVRKLILFLTDEININTR : 531
PC0382    : WEKISTLNLYQOPSWIFCNGRSDLKSETYKPLEPHLWQERASEVRKLILFLTDEININTR : 540

      *           560          *           580          *           600
XM_094949 : GKFLVVFLLSSVESPGDPLIETFWAFYQALKGMENMLCISVNSHIYQRWKDLLQTRMKM : 591
PC0382    : GKFLVVFLLSSVESPGDPLIETFWAFYQALKGMENMLCISVNSHIYQRWKDLLQTRMKM : 600

      *           620          *           640          *           660
XM_094949 : EDELTNHSISTLNIELVNSTILKLSVTRSSRRFLPARGSSSVILEKKKEDVLTAEILC : 651
PC0382    : EDELTNHSISTLNIELVNSTILKLSVTRSSRRFLPARGSSSVILEKKKEDVLTAEILC : 660

      *           680          *           700          *           720
XM_094949 : ENECTETDIEKDKSKFLEFKKSKEEHFYRGKVSWWNFYFSSSENYSSDFVKRDSYEKLD : 711
PC0382    : ENECTETDIEKDKSKFLEFKKSKEEHFYRGKVSWWNFYFSSSENYSSDFVKRDSYEKLD : 720

      *           740          *           760          *           780
XM_094949 : LIHCWAESPKEPIFAKIINLYHHPGCGGTTLAMHVLWDLKKNFRCAVLKNKTTDFAEIAEQ : 771
PC0382    : LIHCWAESPKEPIFAKIINLYHHPGCGGTTLAMHVLWDLKKNFRCAVLKNKTTDFAEIAEQ : 780

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FIG. 10A

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      *           800           *           820           *           840
XM_094949 : VINLVTRYAKSHQDYIPVLLLVDDFEEQENVYFLQNAIHSVLAEKDLRYEKTLLVILNCM : 831
PC0382    : VINLVTRYAKSHQDYIPVLLLVDDFEEQENVYFLQNAIHSVLAEKDLRYEKTLLVILNCM : 840

      *           860           *           880           *           900
XM_094949 : RSRNPDESADSLADSLALNYQLSSKEQRAFGAKLKEIEKQHNKCNCFYSFMIMKSNFDETY : 891
PC0382    : RSRNPDESADSLADSLALNYQLSSKEQRAFGAKLKEIEKQHNKCNCFYSFMIMKSNFDETY : 900

      *           920           *           940           *           960
XM_094949 : IENVVRNILKGQDVDSKEAQLISFLALLSSYVTDSTISVSQCEIFLGIIYTSTPWEPESE : 951
PC0382    : IENVVRNILKGQDVDSKEAQLISFLALLSSYVTDSTISVSQCEIFLGIIYTSTPWEPESE : 960

      *           980           *          1000           *          1020
XM_094949 : EDKMGTYSTLLIKTEVAEYGRYTGVRRIIHPALIALYCLKELERSYHLDKQCIALNILEENL : 1011
PC0382    : EDKMGTYSTLLIKTEVAEYGRYTGVRRIIHPALIALYCLKELERSYHLDKQCIALNILEENL : 1020

      *          1040           *          1060           *          1080
XM_094949 : FYDSGIGRDKFQHDVOTLLLRQRKVYGDETDTLFSPLMEALQNKDIEKVLISAGSRRFPQ : 1071
PC0382    : FYDSGIGRDKFQHDVOTLLLRQRKVYGDETDTLFSPLMEALQNKDIEKVLISAGSRRFPQ : 1080

      *          1100           *          1120           *          1140
XM_094949 : NAFICQALARHFYIKEKDFNTALDWARQAKMKAPKNSYISDTLGQVYKSEIKWWLDGNKN : 1131
PC0382    : NAFICQALARHFYIKEKDFNTALDWARQAKMKAPKNSYISDTLGQVYKSEIKWWLDGNKN : 1140

      *          1160           *          1180           *          1200
XM_094949 : CRSITVNDLTHLLEAAEKASRAFKESQRQTDSKNYETENWSPQKSQRRYDMYNTACFLGE : 1191
PC0382    : CRSITVNDLTHLLEAAEKASRAFKESQRQTDSKNYETENWSPQKSQRRYDMYNTACFLGE : 1200

      *          1220           *          1240           *          1260
XM_094949 : IEVGLYTIQILQLTPFFHKENELSKKHMVQFLSGKWTIPDPNECYLALSKEFTSHLKNL : 1251
PC0382    : IEVGLYTIQILQLTPFFHKENELSKKHMVQFLSGKWTIPDPNECYLALSKEFTSHLKNL : 1260

      *          1280           *          1300           *          1320
XM_094949 : QSDLKRCDFFIDYMVLLKMRYTQKEIAEIMLSKKVSRCFRKYTELFCFLDPCLLQSKES : 1311
PC0382    : QSDLKRCDFFIDYMVLLKMRYTQKEIAEIMLSKKVSRCFRKYTELFCFLDPCLLQSKES : 1320

      *          1340           *          1360           *          1380
XM_094949 : QLLQEENCRKKLEALRADRFAGLLEYLNPYKDATTMESIVNEYAFLQONSKKPMTNEK : 1371
PC0382    : QLLQEENCRKKLEALRADRFAGLLEYLNPYKDATTMESIVNEYAFLQONSKKPMTNEK : 1380

      *          1400           *          1420           *          1440
XM_094949 : QNSILANIILSCLKPNSKLIQPLTTLKKQLREVLOFVGLSHQYPGPYFLACLLFWPENQE : 1431
PC0382    : QNSILANIILSCLKPNSKLIQPLTTLKKQLREVLOFVGLSHQYPGPYFLACLLFWPENQE : 1440

      *          1460           *          1480           *          1500
XM_094949 : LDQDSKLIIEKYVSSLNRSFRGQYKRMCRSKQASTLFYLGKRRGLNSIVHAKIEQYFDKA : 1491
PC0382    : LDQDSKLIIEKYVSSLNRSFRGQYKRMCRSKQASTLFYLGKRRGLNSIVHAKIEQYFDKA : 1500

      *          1520           *          1540           *          1560
XM_094949 : QNTNSLWHSGDVWKKNEVKDLLRRLTGQAEGLISVEYGTTEEKIKIPVISVYSGPLRSGR : 1551
PC0382    : QNTNSLWHSGDVWKKNEVKDLLRRLTGQAEGLISVEYGTTEEKIKIPVISVYSGPLRSGR : 1560

      *          1580
XM_094949 : NIERVSFYLGFSIEGPLAYDIEVI : 1575
PC0382    : NIERVSFYLGFSIEGPLAYDIEVI : 1584

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FIG. 10B

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      *           20           *           40           *           60
PCP0842 : MEEILRK LQKEAS GSKYKA IKESCTWA LETIGGLDTIAKIPPHVLREKCLLP LQ LALESK : 60
XM_050424 : ----- : -

      *           80           *           100          *           120
PCP0842 : NVKLAQHALAGMQKLLSEERFVSMETDSDEKQLLNQILNAVKVTPSLNEDLQVEVMKVLL : 120
XM_050424 : ----- : -

      *           140          *           160          *           180
PCP0842 : CITYTPTFDLNGSAVLKIAEVCIEYIISCHQRSINTAVRATLSQMLS DLT LQLRQRQEN : 180
XM_050424 : ----- : -

      *           200          *           220          *           240
PCP0842 : TIIENPDVPQDFGNQGSTVESLCCDDVVS VLT V LCEKLQAAIKCPSFLTMACWNSGAGTQI : 240
XM_050424 : ----- : -

      *           260          *           280          *           300
PCP0842 : TILTEGSSSTNCSDPIWDTTASPVAASDSQQLQLLYLECILSVLSSSSSSMHLHRRFTDLI : 300
XM_050424 : ----- : -

      *           320          *           340          *           360
PCP0842 : WKNLCPALIVILGNPIHDKTITSAHTSSTSTSLES DSASPGVSDHGRGSGCCTAPALSG : 360
XM_050424 : ----- : -

      *           380          *           400          *           420
PCP0842 : PVARTIYYIAAELVRLVGSVD SMKPV LQSLYHRVLLYPPPPQHRVEAIKIMKEILGSPQRL : 420
XM_050424 : ----- : -

      *           440          *           460          *           480
PCP0842 : CDLAGPSSSESRKRSISKRKSHLDLLKLIMDGMTEACIKGGIEACYAAVSCVCTLLGA : 480
XM_050424 : -----MTEACIKGGIEACYAAVSCVCTLLGA : 26

      *           500          *           520          *           540
PCP0842 : LDELSQGGKGLSEGQVQLLLLRLEELKDGAEWSRDSMEINEADFRWQRRVLSSEHTPWESG : 540
XM_050424 : LDELSQGGKGLSEGQVQLLLLRLEELKDGAEWSRDSMEINEADFRWQRRVLSSEHTPWESG : 86

      *           560          *           580          *           600
PCP0842 : NERSLDISISVTTDTGQTTLEGELGQTTPEDHSGNHKNSLKS PAIPEGKETLSKVLETEA : 600
XM_050424 : NERSLDISISVTTDTGQTTLEGELGQTTPEDHSGNHKNSLKS PAIPEGKETLSKVLETEA : 146

      *           620          *           640          *           660
PCP0842 : VDQPDVVQRSHTVPYPDITNFLSVDCRTRSYGSRYESNF SVDDQDLSRTEFDSCDQYSM : 660
XM_050424 : VDQPDVVQRSHTVPYPDITNFLSVDCRTRSYGSRYESNF SVDDQDLSRTEFDSCDQYSM : 206

      *           680          *           700          *           720
PCP0842 : AA EKDSGRSDVSDIGSDNCSLADEEQTPRDCLGHRSLRTAALSLKLLKNQEADQHSARLF : 720
XM_050424 : AA EKDSGRSDVSDIGSDNCSLADEEQTPRDCLGHRSLRTAALSLKLLKNQEADQHSARLF : 266

      *           740          *           760          *           780
PCP0842 : IQSLEGLLPRLLSLSNV EVD TALQNFAS TFCSGMMHSPGFDGNSSLSFQMLMNADSLYT : 780
XM_050424 : IQSLEGLLPRLLSLSNV EVD TALQNFAS TFCSGMMHSPGFDGNSSLSFQMLMNADSLYT : 326

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FIG. 11A

PCP0842	:	AAHCALLLNKLSHGDIYRKRPTLAPGVMMKDFMKQVQTSGVLMVFSQAWIEELYHQVLD	:	840
XM_050424	:	AAHCALLLNKLSHGDIYRKRPTLAPGVMMKDFMKQVQTSGVLMVFSQAWIEELYHQVLD	:	386
PCP0842	:	NMLGEAGYWGSPEDNSLPLITMLTDIDGLESAIGGQLMASAATESPFAQSRRIDDS	:	900
XM_050424	:	NMLGEAGYWGSPEDNSLPLITMLTDIDGLESAIGGQLMASAATESPFAQSRRIDDS	:	446
PCP0842	:	GVAFARYILVGCWKNLIDTLSTPLTGRMAGSSKGLAFILGAEGIKEQNQKERDAICMS	:	960
XM_050424	:	GVAFARYILVGCWKNLIDTLSTPLTGRMAGSSKGLAFILGAEGIKEQNQKERDAICMS	:	506
PCP0842	:	GLRKAARLSCALGVAANCASALAQMAAAASCVQEEKEEREAEPSDAITQVVKLVEQ	:	1020
XM_050424	:	GLRKAARLSCALGVAANCASALAQMAAAASCVQEEKEEREAEPSDAITQVVKLVEQ	:	566
PCP0842	:	IGKVQGVWLHTAHVLCMEAILSVGLEMGSHNPDCWPHVFRVCEYVGTLEHNFSDGAS	:	1080
XM_050424	:	IGKVQGVWLHTAHVLCMEAILSVGLEMGSHNPDCWPHVFRVCEYVGTLEHNFSDGAS	:	626
PCP0842	:	PLTISQPKATGSAGLLGDPECEGSPPEHSPEQGRSLSTAPVVQPLSIQDLVREGSR	:	1140
XM_050424	:	PLTISQPKATGSAGLLGDPECEGSPPEHSPEQGRSLSTAPVVQPLSIQDLVREGSR	:	686
PCP0842	:	SDFRGGSLMSGSSAAKVVLTLSTQADRLFEDATDKLNLMLGGLYQLKKASQSLFHS	:	1200
XM_050424	:	SDFRGGSLMSGSSAAKVVLTLSTQADRLFEDATDKLNLMLGGLYQLKKASQSLFHS	:	746
PCP0842	:	TDTVDYSLAMPGEVKSTQDRKSALHLFRLGNAMLRIVRSKARELLHVMRCWSLVAPHL	:	1260
XM_050424	:	TDTVDYSLAMPGEVKSTQDRKSALHLFRLGNAMLRIVRSKARELLHVMRCWSLVAPHL	:	806
PCP0842	:	AACHKERHVSQKAVSFIHDILTEVLTWDWNEPPHFHNEALFRPFERIMQLELCDEVDQ	:	1320
XM_050424	:	AACHKERHVSQKAVSFIHDILTEVLTWDWNEPPHFHNEALFRPFERIMQLELCDEVDQ	:	866
PCP0842	:	VVTSIGELVEVCSTQIQSGWRPLFSALETVHGGNKSEMKEYLVGDYSMGKGQAPVDF	:	1380
XM_050424	:	VVTSIGELVEVCSTQIQSGWRPLFSALETVHGGNKSEMKEYLVGDYSMGKGQAPVDF	:	926
PCP0842	:	AFLNTDNIQVFANAATSYIMCLMKFVKGLGEVDCKEIGDCAPAPGAPSTDLCPLALDY	:	1440
XM_050424	:	AFLNTDNIQVFANAATSYIMCLMKFVKGLGEVDCKEIGDCAPAPGAPSTDLCPLALDY	:	986
PCP0842	:	RCSQLLAKIYKMPLKPIFLSGRLAGLPRRLQEASSEDGIESVLSDFDDDTGLIEVWI	:	1500
XM_050424	:	RCSQLLAKIYKMPLKPIFLSGRLAGLPRRLQEASSEDGIESVLSDFDDDTGLIEVWI	:	1046
PCP0842	:	LLEQLTAAVSNCPQHQPPTLDLLFELLRDVTKTPGPGFGIYAVVHLLLPVMSVWLRR	:	1560
XM_050424	:	LLEQLTAAVSNCPQHQPPTLDLLFELLRDVTKTPGPGFGIYAVVHLLLPVMSVWLRR	:	1106

FIG. 11B

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      *      1580      *      1600      *      1620
PCP0842 : KDHSYWDMASANFKHAIGLSCELVVEHIQSFLHSDIRYESMINTMLKDLFELLVACVAKP : 1620
XM_050424 : KDHSYWDMASANFKHAIGLSCELVVEHIQSFLHSDIRYESMINTMLKDLFELLVACVAKP : 1166

      *      1640      *      1660      *      1680
PCP0842 : TETISRVGCSCIRYVLVTAGPVFTEEMWRLACCALQDAFSATLKPVKDLLGCFHSGTESF : 1680
XM_050424 : TETISRVGCSCIRYVLVTAGPVFTEEMWRLACCALQDAFSATLKPVKDLLGCFHSGTESF : 1226

      *      1700      *      1720      *      1740
PCP0842 : SGEGCQVRVAAPSSSSPAEAEYWRIRAMAQQVFMLDTQCSPKTENNFDHAQSCQLIIELEP : 1740
XM_050424 : SGEGCQVRVAAPSSSSPAEAEYWRIRAMAQQVFMLDTQCSPKTENNFDHAQSCQLIIELEP : 1286

      *      1760      *      1780      *      1800
PCP0842 : PDEKPNGHTKKSVSFREIVVSLLSHQVLLQONLYDILLEEFVKGPSPGEEKTIQVPEAKLA : 1800
XM_050424 : PDEKPNGHTKKSVSFREIVVSLLSHQVLLQONLYDILLEEFVKGPSPGEEKTIQVPEAKLA : 1346

      *      1820      *      1840      *      1860
PCP0842 : GFRLYISMQLAVIFDLLLLDSYRTAREFDTSPLKCLLKKVSGIGGAANLYRQSAMSFN1 : 1860
XM_050424 : GFRLYISMQLAVIFDLLLLDSYRTAREFDTSPLKCLLKKVSGIGGAANLYRQSAMSFN1 : 1406

      *      1880      *      1900      *      1920
PCP0842 : YFHALVCAVLTNQETITAEQVKKVLFEDDERSTDSSQQCSSEDEDI FEETAQVSPPRGKE : 1920
XM_050424 : YFHALVCAVLTNQETITAEQVKKVLFEDDERSTDSSQQCSSEDEDI FEETAQVSPPRGKE : 1466

      *      1940      *      1960      *      1980
PCP0842 : KRQWRARMPLLSVQPVSNADWVWLVKRLHKLKLMELCNYYIQMHLDLNCEEPPIFKGDP : 1980
XM_050424 : KRQWRARMPLLSVQPVSNADWVWLVKRLHKLKLMELCNYYIQMHLDLNCEEPPIFKGDP : 1526

      *      2000      *      2020      *      2040
PCP0842 : FFILPSFQSESSTPSTGGFSGKETPSEDDRSQREHMGESLSLKAGGGDLLPPSPKVEK : 2040
XM_050424 : FFILPSFQSESSTPSTGGFSGKETPSEDDRSQREHMGESLSLKAGGGDLLPPSPKVEK : 1586

      *      2060      *      2080      *      2100
PCP0842 : KDPSRKKEWWENAGNKIYTMAADKTISKLMTEYKKRKQOHNLSAFPKEVKVEKKGEPLGP : 2100
XM_050424 : KDPSRKKEWWENAGNKIYTMAADKTISKLMTEYKKRKQOHNLSAFPKEVKVEKKGEPLGP : 1646

      *      2120      *      2140      *      2160
PCP0842 : RGQDSPLLQRPQHLMDQGQMRHSFSAGPELLRQDKRPRSGSTGSSLSVSVRDAAEQIQAW : 2160
XM_050424 : RGQDSPLLQRPQHLMDQGQMRHSFSAGPELLRQDKRPRSGSTGSSLSVSVRDAAEQIQAW : 1706

      *      2180      *      2200      *      2220
PCP0842 : TNMVLTVLNQIQILPDQTF TALQPAVFPCISQLTCHVTDIRVRQAVREWLG RVGRVYDII : 2220
XM_050424 : TNMVLTVLNQIQILPDQTF TALQPAVFPCISQLTCHVTDIRVRQAVREWLG RVGRVYDII : 1766

PCP0842 : V : 2221
XM_050424 : V : 1767

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FIG. 11C

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      *           20           *           40           *           60
PCP0405 : METGGRARTGTPQPAAPGVWRARPAGGGGGGASSWLLDGNSWLLCYGFLYLALYAQVSQS : 60
KIAA0534 : ----- : -

      *           80           *           100          *           120
PCP0405 : KPCERTGSCFSGRCVNSTCLCDPGWVGDCQHCQGRFKLTEPSGYLTGDPINYYKTKCT : 120
KIAA0534 : ----- : -

      *           140          *           160           *           180
PCP0405 : WLIEGYPNAVLRLRFNHFATECSWDHMYVYDGDSTYAPLIAVLSGLIVPEIRGNETVPEV : 180
KIAA0534 : ----- : -

      *           200          *           220           *           240
PCP0405 : VTTSGYALLHFFSDAAYNLGTGFNIFYSINSCPNNCSEHGKCTTSVSVPSQVYCECDKYWK : 240
KIAA0534 : ----- : -

      *           260          *           280           *           300
PCP0405 : GEACDIPYCKANCGSPDHGYCDLTGEKLCVCNDSWQGPDCSLNVPSTESYWILPNVKPFS : 300
KIAA0534 : ----- : -

      *           320          *           340           *           360
PCP0405 : PSVGRASHKAVLHGKFMWVIGGYTFNYSSSQMVLNYNLESSIWNVGTSPSRG PLQRYGHSL : 360
KIAA0534 : ----- PLQRYGHSL : 9

      *           380          *           400           *           420
PCP0405 : ALYQENIFMYGGRIETNDGNVTDELWVFNIHSQSWSTKTPTVLGHGQQYAVEGHSAHIME : 420
KIAA0534 : ALYQENIFMYGGRIETNDGNVTDELWVFNIHSQSWSTKTPTVLGHGQQYAVEGHSAHIME : 69

      *           440          *           460           *           480
PCP0405 : LDSRDVVMIIIFGYSAIYGYTSSIOEYHISSNTWLVPEKGAIVQGGYGHSTSVYDEITKS : 480
KIAA0534 : LDSRDVVMIIIFGYSAIYGYTSSIOEYHISSNTWLVPEKGAIVQGGYGHSTSVYDEITKS : 129

      *           500          *           520           *           540
PCP0405 : IYVHGGYKALPGNKYGLVDDLYKYEVNTKTWTILKESGFARYLHSAVLINGAMLIFGGNT : 540
KIAA0534 : IYVHGGYKALPGNKYGLVDDLYKYEVNTKTWTILKESGFARYLHSAVLINGAMLIFGGNT : 189

      *           560          *           580           *           600
PCP0405 : HNDTSLSNGAKCFSADFLAYDIACDEWKILPKPNLHRDVNRFHSAVVINGSMYIFGGFS : 600
KIAA0534 : HNDTSLSNGAKCFSADFLAYDIACDEWKILPKPNLHRDVNRFHSAVVINGSMYIFGGFS : 249

      *           620          *           640           *           660
PCP0405 : SVLLNDILVYKPPNCKAFRDEELCKNAGPGIKCVWNKNHCESWESGNTNNILRAKCPPKT : 660
KIAA0534 : SVLLNDILVYKPPNCKAFRDEELCKNAGPGIKCVWNKNHCESWESGNTNNILRAKCPPKT : 309

      *           680          *           700           *           720
PCP0405 : AASDDRCYRYADCACTANTNGCQWCDKCKISANSNCMSVKNYTKCHVRNEQICNKL : 720
KIAA0534 : AASDDRCYRYADCACTANTNGCQWCDKCKISANSNCMSVKNYTKCHVRNEQICNKL : 369

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FIG. 12A

PCP0405	:	SCKSCSLNLCQWDQRQQECQALPAHLCGEGWSHIGDACLRVNSSRENYDNAKLYCYNLS	:	780
KIAA0534	:	SCKSCSLNLCQWDQRQQECQALPAHLCGEGWSHIGDACLRVNSSRENYDNAKLYCYNLS	:	429
PCP0405	:	GNLASLTTSKEVEFVLDEIQKYTQQKVSPWVGLRKINISYWGWEDMSPFTNTTLOWLPGE	:	840
KIAA0534	:	GNLASLTTSKEVEFVLDEIQKYTQQKVSPWVGLRKINISYWGWEDMSPFTNTTLOWLPGE	:	489
PCP0405	:	PNDSGFCAYLERAAVAGLKANPCTSMANGLVCEKFPVSPNQARPCKKPCSLRTSCSNCT	:	900
KIAA0534	:	PNDSGFCAYLERAAVAGLKANPCTSMANGLVCEKFPVSPNQARPCKKPCSLRTSCSNCT	:	549
PCP0405	:	SNGMECMWCSSTKRCVDSNAYIISFPYGQCLEWQTATCSPNCSGLRTCGQCLEQPGCGW	:	960
KIAA0534	:	SNGMECMWCSSTKRCVDSNAYIISFPYGQCLEWQTATCSPNCSGLRTCGQCLEQPGCGW	:	609
PCP0405	:	CNDPSNTGRGHCIEGSSRGPMKLGHHNEMVLDTNLCPKEKNYEWFSFIQCPACQCNHGS	:	1020
KIAA0534	:	CNDPSNTGRGHCIEGSSRGPMKLGHHNEMVLDTNLCPKEKNYEWFSFIQCPACQCNHGS	:	669
PCP0405	:	TCINNNVCEQCKNLTGKQCQDCMPGYGDPNTGGQCTACTCSGHANICHLHTGKCFCTT	:	1080
KIAA0534	:	TCINNNVCEQCKNLTGKQCQDCMPGYGDPNTGGQCTACTCSGHANICHLHTGKCFCTT	:	729
PCP0405	:	KGIKGDQCQLCDSENRYVGNPLRGTCYYSLLIDYQFTFSLQEDDRHHTAINFIANPEQS	:	1140
KIAA0534	:	KGIKGDQCQLCDSENRYVGNPLRGTCYYSLLIDYQFTFSLQEDDRHHTAINFIANPEQS	:	789
PCP0405	:	NKNLDISINASNFFNLNISWSVGSTAGTISGEETSIVSKNNIKEYRDSFSYEKFNFRSNP	:	1200
KIAA0534	:	NKNLDISINASNFFNLNITWSVGSTAGTISGEETSIVSKNNIKEYRDSFSYEKFNFRSNP	:	849
PCP0405	:	NITFYVYVSNFWSPIKIQIAFSQHNTIMDLVQFFVTFSCFLSLLVAAVVWIKQTCWA	:	1260
KIAA0534	:	NITFYVYVSNFWSPIKIQIAFSQHNTIMDLVQFFVTFSCFLSLLVAAVVWIKQTCWA	:	909
PCP0405	:	SRRREQLLRERQMASRPFASVDVALEVGAEQTEFLRGPLEGAPKPIAIEPCAGNRAAVL	:	1320
KIAA0534	:	SRRREQLLRERQMASRPFASVDVALEVGAEQTEFLRGPLEGAPKPIAIEPCAGNRAAVL	:	969
PCP0405	:	TVFLCLPRGSSGAPPPGQSGLAIASALIDISQQKASDSKDKTSGVRNRKHLSTROGTCV	:	1379
KIAA0534	:	TVFLCLPRGSSGAPPPGQSGLAIASALIDISQQKASDSKDKTSGVRNRKHLSTROGTCV	:	1028

FIG. 12B



	*	20	*	40	*	60	
PC0177A :							60
PC0177B :							60
PC0177C :							60
PC0177D :							60
KIAA1217 :							-
	*	80	*	100	*	120	
PC0177A :							120
PC0177B :							120
PC0177C :							120
PC0177D :							120
KIAA1217 :							35
	*	140	*	160	*	180	
PC0177A :							180
PC0177B :							180
PC0177C :							180
PC0177D :							180
KIAA1217 :							95
	*	200	*	220	*	240	
PC0177A :							240
PC0177B :							240
PC0177C :							240
PC0177D :							240
KIAA1217 :							155
	*	260	*	280	*	300	
PC0177A :							300
PC0177B :							300
PC0177C :							300
PC0177D :							300
KIAA1217 :							215
	*	320	*	340	*	360	
PC0177A :							360
PC0177B :							360
PC0177C :							360
PC0177D :							360
KIAA1217 :							275
	*	380	*	400	*	420	
PC0177A :							420
PC0177B :							420
PC0177C :							420
PC0177D :							420
KIAA1217 :							335

FIG. 13A

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      *           440           *           460           *           480
PC0177A : I I A Y H R T A I R S A Y C N P S M Q A E M H N E Q S L Y R Q K S R K Y P D S H L P T L G S K T P P A S P H R V S D : 480
PC0177B : I I A Y H R T A I R S A Y C N P S M Q A E M H N E Q S L Y R Q K S R K Y P D S H L P T L G S K T P P A S P H R V S D : 480
PC0177C : I I A Y H R T A I R S A Y C N P S M Q A E M H N E Q S L Y R Q K S R K Y P D S H L P T L G S K T P P A S P H R V S D : 480
PC0177D : I I A Y H R T A I R S A Y C N P S M Q A E M H N E Q S L Y R Q K S R K Y P D S H L P T L G S K T P P A S P H R V S D : 480
KIAA1217 : I I A Y H R T A I R S A Y C N P S M Q A E M H N E Q S L Y R Q K S R K Y P D S H L P T L G S K T P P A S P H R V S D : 395

      *           500           *           520           *           540
PC0177A : L R M I D M H A H Y N A H G P P H T M Q P D R A S P S R Q A F K K E P G T L V Y I E K P R S A A G L S S L V D L G P P L : 540
PC0177B : L R M I D M H A H Y N A H G P P H T M Q P D R A S P S R Q A F K K E P G T L V Y I E K P R S A A G L S S L V D L G P P L : 540
PC0177C : L R M I D M H A H Y N A H G P P H T M Q P D R A S P S R Q A F K K E P G T L V Y I E K P R S A A G L S S L V D L G P P L : 540
PC0177D : L R M I D M H A H Y N A H G P P H T M Q P D R A S P S R Q A F K K E P G T L V Y I E K P R S A A G L S S L V D L G P P L : 540
KIAA1217 : L R M I D M H A H Y N A H G P P H T M Q P D R A S P S R Q A F K K E P G T L V Y I E K P R S A A G L S S L V D L G P P L : 455

      *           560           *           580           *           600
PC0177A : M E K Q V F A Y S T A T I P K D R E T R E R M Q A M E K Q I A S L T G L V Q S A L F K G P I T S Y S K D A S S E K M M K : 600
PC0177B : M E K Q V F A Y S T A T I P K D R E T ----- S E K M M K : 565
PC0177C : M E K Q V F A Y S T A T I P K D R E T ----- S E K M M K : 565
PC0177D : M E K Q V F A Y S T A T I P K D R E T ----- S E K M M K : 565
KIAA1217 : M E K Q V F A Y S T A T I P K D R E T R E R M Q A M E K Q I A S L T G L V Q S A L F K G P I T S Y S K D A S S E K M M K : 515

      *           620           *           640           *           660
PC0177A : T T A N R N H T D S A G T P H V S G G K M L S A L E S T V P P S Q P P P V G T S A I H M S L L E M R R S V A E L R L Q L : 660
PC0177B : T T A N R N H T D S A G T P H V S G G K M L S A L E S T V P P S Q P P P V G T S A I H M S L L E M R R S V A E L R L Q L : 625
PC0177C : T T A N R N H T D S A G T P H V S G G K M L S A L E S T V P P S Q P P P V G T S A I H M S L L E M R R S V A E L R L Q L : 625
PC0177D : T T A N R N H T D S A G T P H V S G G K M L S A L E S T V P P S Q P P P V G T S A I H M S L L E M R R S V A E L R L Q L : 625
KIAA1217 : T T A N R N H T D S A G T P H V S G G K M L S A L E S T V P P S Q P P P V G T S A I H M S L L E M R R S V A E L R L Q L : 575

      *           680           *           700           *           720
PC0177A : Q Q M R Q L Q L Q N Q E L L R A M M K K A E L I S G K V M E T M K R L E D P V Q R Q R V L V E Q E R Q K Y L H E E E K : 720
PC0177B : Q Q M R Q L Q L Q N Q E L L R A M M K K A E L I S G K V M E T M K R L E D P V Q R Q R V L V E Q E R Q K Y L H E E E K : 685
PC0177C : Q Q M R Q L Q L Q N Q E L L R A M M K K A E L I S G K V M E T M K R L E D P V Q R Q R V L V E Q E R Q K Y L H E E E K : 685
PC0177D : Q Q M R Q L Q L Q N Q E L L R A M M K K A E L I S G K V M E T M K R L E D P V Q R Q R V L V E Q E R Q K Y L H E E E K : 685
KIAA1217 : Q Q M R Q L Q L Q N Q E L L R A M M K K A E L I S G K V M E T M K R L E D P V Q R Q R V L V E Q E R Q K Y L H E E E K : 635

      *           740           *           760           *           780
PC0177A : I V K K L C E L E D F V E D L K K D S T A A S R L V T L K D V E D G A F L L R Q V G E A V A T L K G E F P T L Q N K M R : 780
PC0177B : I V K K L C E L E D F V E D L K K D S T A A S R L V T L K D V E D G A F L L R Q V G E A V A T L K G E F P T L Q N K M R : 745
PC0177C : I V K K L C E L E D F V E D L K K D S T A A S R L V T L K D V E D G A F L L R Q V G E A V A T L K G E F P T L Q N K M R : 745
PC0177D : I V K K L C E L E D F V E D L K K D S T A A S R L V T L K D V E D G A F L L R Q V G E A V A T L K G E F P T L Q N K M R : 745
KIAA1217 : I V K K L C E L E D F V E D L K K D S T A A S R L V T L K D V E D G A F L L R Q V G E A V A T L K G E F P T L Q N K M R : 695

      *           800           *           820           *           840
PC0177A : A I L R I E V E A V R F L K E E P H K L D S L L K R V R S M T D V L T M L R R H V T D G L L K G T D A A Q A A Q Y M A M : 840
PC0177B : A I L R I E V E A V R F L K E E P H K L D S L L K R V R S M T D V L T M L R R H V T D G L L K G T D A A Q A A Q Y M A M : 805
PC0177C : A I L R I E V E A V R F L K E E P H K L D S L L K R V R S M T D V L T M L R R H V T D G L L K G T D A A Q A A Q Y M A M : 805
PC0177D : A I L R I E V E A V R F L K E E P H K L D S L L K R V R S M T D V L T M L R R H V T D G L L K G T D A A Q A A Q Y M A M : 805
KIAA1217 : A I L R I E V E A V R F L K E E P H K L D S L L K R V R S M T D V L T M L R R H V T D G L L K G T D A A Q A A Q Y M A M : 755

      *           860           *           880           *           900
PC0177A : E K A T A A E V L K S Q E E A A H T S G Q P F H S T G A P G D A K S E V V P L S G M M V R H A Q S S P V V I Q P S Q H S : 900
PC0177B : E K A T A A E V L K S Q E E A A H T S G Q P F H S T G A P G D A K S E V V P L S G M M V R H A Q S S P V V I Q P S Q H S : 865
PC0177C : E K A T A A E V L K S Q E E A A H T S G Q P F H S T G A P G D A K S E V V P L S G M M V R H A Q S S P V V I Q P S Q H S : 865
PC0177D : E K A T A A E V L K S Q E E A A H T S G Q P F H S T G A P G D A K S E V V P L S G M M V R H A Q S S P V V I Q P S Q H S : 865
KIAA1217 : E K A T A A E V L K S Q E E A A H T S G Q P F H S T G A P G D A K S E V V P L S G M M V R H A Q S S P V V I Q P S Q H S : 815

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FIG. 13B

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          *           920           *           940           *           960
PC0177A : VALLNPAQNLPHVASSPAVPQEATSTLQMSQAPQSPQIPMNGSAMQSLFIEEIHVSNAK : 960
PC0177B : VALLNPAQNLPHVASSPAVPQEATSTLQMSQAPQSPQIPMNGSAMQSLFIEEIHVSNAK : 925
PC0177C : VALLNPAQNLPHVASSPAVPQEATSTLQMSQAPQSPQIPMNGSAMQSLFIEEIHVSNAK : 925
PC0177D : VALLNPAQNLPHVASSPAVPQEATSTLQMSQAPQSPQIPMNGSAMQSLFIEEIHVSNAK : 925
KIAA1217 : VALLNPAQNLPHVASSPAVPQEATSTLQMSQAPQSPQIPMNGSAMQSLFIEEIHVSNAK : 875

          *           980           *           1000          *           1020
PC0177A : RAVSIEKAEKKWEEKRONLDHYNGKEFEKLLIEEAQANIMKSI PNLEMPPTATGPLPRGDAP : 1020
PC0177B : RAVSIEKAEKKWEEKRONLDHYNGKEFEKLLIEEAQANIMKSI PNLEMPPTATGPLPRGDAP : 985
PC0177C : RAVSIEKAEKKWEEKRONLDHYNGKEFEKLLIEEAQANIMKSI PNLEMPPTATGPLPRGDAP : 985
PC0177D : RAVSIEKAEKKWEEKRONLDHYNGKEFEKLLIEEAQANIMKSI PNLEMPPTATGPLPRGDAP : 985
KIAA1217 : RAVSIEKAEKKWEEKRONLDHYNGKEFEKLLIEEAQANIMKSI PNLEMPPTATGPLPRGDAP : 935

          *           1040          *           1060          *           1080
PC0177A : VDKVELSEDSNPSEQDLEKLGGKSPPPPPPPRRSYLPGSGLTTRSGDVVYTGRKENIT : 1080
PC0177B : VDKVELSEDSNPSEQDLEKLGGKSPPPPPPPRRSYLPGSGLTTRSGDVVYTGRKENIT : 1045
PC0177C : VDKVELSEDSNPSEQDLEKLGGKSPPPPPPPRRSYLPGSGLTTRSGDVVYTGRKENIT : 1045
PC0177D : VDKVELSEDSNPSEQDLEKLGGKSPPPPPPPRRSYLPGSGLTTRSGDVVYTGRKENIT : 1045
KIAA1217 : VDKVELSEDSNPSEQDLEKLGGKSPPPPPPPRRSYLPGSGLTTRSGDVVYTGRKENIT : 995

          *           1100          *           1120          *           1140
PC0177A : AKASSEDAGPSPQTRATKYPAEEPASAWTPSPPPVTTSSSKDEEEEEEGDKIMAELOAF : 1140
PC0177B : AKASSEDAGPSPQTRATKYPAEEPASAWTPSPPPVTTSSSKDEEEEEEGDKIMAELOAF : 1105
PC0177C : AKASSEDAGPSPQTRATKYPAEEPASAWTPSPPPVTTSSSKDEEEEEEGDKIMAELOAF : 1105
PC0177D : AKASSEDAGPSPQTRATKYPAEEPASAWTPSPPPVTTSSSKDEEEEEEGDKIMAELOGS : 1105
KIAA1217 : AKASSEDAGPSPQTRATKYPAEEPASAWTPSPPPVTTSSSKDEEEEEEGDKIMAELOGS : 1055

          *           1160          *           1180          *           1200
PC0177A : Q---KCSFMDVNSNSHAEPSSRADSHVKDTR----- : 1167
PC0177B : Q---KCSFMDVNSNSHAEPSSRADSHVKDTR----- : 1132
PC0177C : Q---KCSFMDVNSNSHAEPSSRADSHVKDTR----- : 1132
PC0177D : SGAPQTSRMPVPMSAKNRPGTLDKPGKQSKLQDPRQYRQANGSAKKSGGDFKPTSPSLPA : 1165
KIAA1217 : SGAPQTSRMPVPMSAKNRPGTLDKPGKQSKLQDPRQYRQANGSAKKSGGDFKPTSPSLPA : 1115

          *           1220          *           1240          *           1260
PC0177A : ----- : -
PC0177B : ----- : -
PC0177C : ----- : -
PC0177D : SKIPALSPSSGKSSSLPSSSGDSSNLPNPPATKPSIASNPLSPQTGPPAHSASLIPSVSN : 1225
KIAA1217 : SKIPALSPSSGKSSSLPSSSGDSSNLPNPPATKPSIASNPLSPQTGPPAHSASLIPSVSN : 1175

          *           1280          *           1300          *           1320
PC0177A : ----- : -
PC0177B : ----- : -
PC0177C : ----- : -
PC0177D : GSLKFQSLTHTGKGHHLSFSPQSQNGRAPPLSFSSSPSPASSVSLNQAKGTRTIHTP : 1285
KIAA1217 : GSLKFQSLTHTGKGHHLSFSPQSQNGRAPPLSFSSSPSPASSVSLNQAKGTRTIHTP : 1235

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FIG. 13C

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      *      1340      *      1360      *      1380
PC0177A : -----SGATVPPKEKKNLEFFHEDVRKSDVEYENGPMQMEFQ : 1203
PC0177B : -----SGATVPPKEKKNLEFFHEDVRKSDVEYENGPMQMEFQ : 1168
PC0177C : -----SGATVPPKEKKNLEFFHEDVRKSDVEYENGPMQMEFQ : 1168
PC0177D : SLTSYKAQNGSSSKATPSTAKETS----- : 1309
KIAA1217 : SLTSYKAQNGSSSKATPSTAKETS----- : 1259

      *      1400      *      1420      *      1440
PC0177A : KVTTGAVRPSDPPKWERGMENSISDASRTSEYKTEIIMKENSISNMSLLRDSRNYSETV : 1263
PC0177B : KVTTGAVRPSDPPKWERGMENSISDASRTSEYKTEIIMKENSISNMSLLRDSRNYSETV : 1228
PC0177C : KVTTGAVRPSDPPKWERGMENSISDASRTSEYKTEIIMKENSISNMSLLRDSRNYSETV : 1228
PC0177D : ----- : -
KIAA1217 : ----- : -

      *      1460      *      1480      *      1500
PC0177A : PKASFGFSGISPLEDEINKGSKISGLQYSIPDTENQTLNYGKTKEMEKQNTDKCHVSSHT : 1323
PC0177B : PKASFGFSGISPLEDEINKGSKISGLQYSIPDTENQTLNYGKTKEMEKQNTDKCHVSSHT : 1288
PC0177C : PKASFGFSGISPLEDEINKGSKISGLQYSIPDTENQTLNYGKTKEMEKQNTDKCHVSSHT : 1288
PC0177D : ----- : -
KIAA1217 : ----- : -

      *      1520      *      1540      *      1560
PC0177A : RLTESSVHDFKTEDQEVITTDGQVVLRLPKEARHANVNPNEGESSSSSPTEENAATDNI : 1383
PC0177B : RLTESSVHDFKTEDQEVITTDGQVVLRLPKEARHANVNPNEGESSSSSPTEENAATDNI : 1348
PC0177C : RLTESSVHDFKTEDQEVITTDGQVVLRLPKEARHANVNPNEGESSSSSPTEENAATDNI : 1348
PC0177D : ----- : -
KIAA1217 : ----- : -

      *      1580      *      1600      *      1620
PC0177A : AFMITETTQVVLSSGEVHDIVSQKGEDIQTVNIDARKEMTPRQEGTDNEDPVVCLDKKPV : 1443
PC0177B : AFMITETTQVVLSSGEVHDIVSQKGEDIQTVNIDARKEMTPRQEGTDNEDPVVCLDKKPV : 1408
PC0177C : AFMITETTQVVLSSGEVHDIVSQKGEDIQTVNIDARKEMTPRQEGTDNEDPVVCLDKKPV : 1408
PC0177D : ----- : -
KIAA1217 : ----- : -

      *      1640      *      1660      *      1680
PC0177A : IIIIFDEPMDIRSAYKRLSTIFEEDDEELERMMEEEKIEEEEEENGDSVVQNNNTSQMSH : 1503
PC0177B : IIIIFDEPMDIRSAYKRLSTIFEEDDEELERMMEEEKIEEEEEENGDSVVQNNNTSQMSH : 1468
PC0177C : IIIIFDEPMDIRSAYKRLSTIFEEDDEELERMMEEEKIEEEEEENGDSVVQNNNTSQMSH : 1468
PC0177D : ----- : -
KIAA1217 : ----- : -

      *      1700      *      1720      *      1740
PC0177A : KKVAPGNLRTGQQVETKSQPHSLATETRNPGGQEMNRTELNKFHVSDPNSECKGEDATD : 1563
PC0177B : KKVAPGNLRTGQQVETKSQPHSLATETRNPGGQEMNRTELNKFHVSDPNSECKGEDATD : 1528
PC0177C : KKVAPGNLRTGQQVETKSQPHSLATETRNPGGQEMNRTELNKFHVSDPNSECKGEDATD : 1528
PC0177D : ----- : -
KIAA1217 : ----- : -

```

FIG. 13D

		*	1760	*	1780	*	1800	
PC0177A	:	DQFESPKKKFKFKFPKKQLAALTQAIRTGKTGKKT	LQVVVYEEEEEDGTLKQHK	EAKRF	:	1623		
PC0177B	:	DQFESPKKKFKFKFPKKQLAALTQAIRTGKTGKKT	LQVVVYEEEEEDGTLKQHK	EAKRF	:	1588		
PC0177C	:	DQFESPKKKFKFKFPKKQLAALTQAIRTGKTGKKT	LQVVVYEEEEEDGTLKQHK	EAKRF	:	1588		
PC0177D	:	-----	-----	-----	:	-		
KIAA1217	:	-----	-----	-----	:	-		

		*	1820	*	1840	*	1860	
PC0177A	:	EIARSQPEDTPENTVRRQE	QPSIESTSPISRTDEIRKNTYRT	LDSLEQTIKQLENTISEM	:	1683		
PC0177B	:	EIARSQPEDTPENTVRRQE	QPSIESTSPISRTDEIRKNTYRT	LDSLEQTIKQLENTISEM	:	1648		
PC0177C	:	EIARSQPEDTPENTVRRQE	QPSIESTSPISRTDEIRKNTYRT	LDSLEQTIKQLENTISEM	:	1648		
PC0177D	:	-----	-----	-----	:	-		
KIAA1217	:	-----	-----	-----	:	-		

		*	1880	*	1900	*	1920	
PC0177A	:	SPKALVDTSCSSNRDSVASSSHIAQEASPRLLVPDEGPTALEPPTSIPSASRK	-----	:	1737			
PC0177B	:	SPKALVDTSCSSNRDSVASSSHIAQEASPRLLVPDEGPTALEPPTSIPSASRK	-----	:	1702			
PC0177C	:	SPKALVDTSCSSNRDSVASSSHIAQEASPRLLVPDEGPTALEPPTSIPSASRK	GSSGAP	:	1708			
PC0177D	:	-----	-----	:	-			
KIAA1217	:	-----	-----	:	-			

		*	1940	*	1960	*	1980	
PC0177A	:	-----	-----	-----	-----	:	-	
PC0177B	:	-----	-----	-----	-----	:	-	
PC0177C	:	QTSRMPVPM	SAKNRPGTLDKPGKQSKLQDPRQYRQANGS	SAKKSGGDFKPTSPSLPASKIP	:	1768		
PC0177D	:	-----	-----	-----	-----	:	-	
KIAA1217	:	-----	-----	-----	-----	:	-	

		*	2000	*	2020	*	2040	
PC0177A	:	-----	-----	-----	-----	:	-	
PC0177B	:	-----	-----	-----	-----	:	-	
PC0177C	:	ALSPSSGKSSSLPSSSGDSSNLPNPPATKPSIASNPLSPQTGPPAHSASLIPSVSNGSLK	:	1828				
PC0177D	:	-----	-----	-----	-----	:	-	
KIAA1217	:	-----	-----	-----	-----	:	-	

		*	2060	*	2080	*	2100	
PC0177A	:	-----	-----	-----	-----	:	-	
PC0177B	:	-----	-----	-----	-----	:	-	
PC0177C	:	FQSLTHTGKGHLSFSPQSQNGRAPPLSFSSSPSPASSVSLNQGAKGTRTIHTPSLTS	:	1888				
PC0177D	:	-----	-----	-----	-----	:	-	
KIAA1217	:	-----	-----	-----	-----	:	-	

		*	2120	
PC0177A	:	-----VSWSAGK	:	1744
PC0177B	:	-----VSWSAGK	:	1709
PC0177C	:	YKAQNGSSSKATPSTAKETS	:	1908
PC0177D	:	-----	:	-
KIAA1217	:	-----	:	-

FIG. 13E

PCP0454	:	MNAQRLLRATKLLKKPILLEGSPGVGKTSLVGALAKASGNTLVRINLSEQTDITDLFGADL	:	60
KIAA0301	:	-----	:	-
PCP0454	:	PVEGGKGGEFAWRDGPLLAALKAGHWVVLDELNLASQSVLEGLNACFDHRGEIYVPGLGM	:	120
KIAA0301	:	-----	:	-
PCP0454	:	SFQVQHEKTKIFGCQNPFRQGGGRKGLPRSFNLNFTQVFVDPLTVIDMEFIASLTFLPAIE	:	180
KIAA0301	:	-----	:	-
PCP0454	:	KNIVKKMVAFNNQIDHEVTVEKKWGQKGGPWEFNLRDLFRWCQLMLVDQSPGCYDPGQHV	:	240
KIAA0301	:	-----	:	-
PCP0454	:	FLVYGERMRTEEDKKKVIKVDVFGSNSNPYMGTRLFRITPYDVQLGYSVLSRGSCVPH	:	300
KIAA0301	:	-----	:	-
PCP0454	:	PSRHPLLLHQSFPLESIMKCVQMSWMVILVGPASVGKTSLVQLLAHLTGHTLTKIMAMN	:	360
KIAA0301	:	-----	:	-
PCP0454	:	SAMDTTELLGGFEQVDLIRPWRRLLEKVEGTVRALLRDSLLISADDAEVVLRASHFLLT	:	420
KIAA0301	:	-----	:	-
PCP0454	:	YKPKCLGEGGKAITMEIVNKLEAVLLLMQRLNNKINSYCKAEFAKLVEEFRSFGVKLTQL	:	480
KIAA0301	:	-----	:	-
PCP0454	:	ASGHSHTFEWVDSMLVQALKSGDWLLMDNVNFCNPVLDRLNALLEPGGVLTISERGMI	:	540
KIAA0301	:	-----	:	-
PCP0454	:	DGSTPTITPNPNFRLFLSMDPVHGDISRAMNRNGLEIYISGEGDASTPDNLDLKVLLHSL	:	600
KIAA0301	:	-----	:	-
PCP0454	:	GLVGNSVCDILLALHTETRSTVVGSPSTSSVSTLIQTALIVQYLQRLSLDRAFSEACWE	:	660
KIAA0301	:	-----	:	-
PCP0454	:	VYVCSQHSPANRKLIVQALLEKHVSSSLRAHETWGDLSILGMGLWPDSVPSALFATEDSHLST	:	720
KIAA0301	:	-----	:	-

FIG. 14A

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      *           740           *           760           *           780
PCP0454 : VRRDGQILVYCLNRMSMTSSWTRSQPFTLQDLEKIMQSPSPENLKFNAVEVNTYWIDEP : 780
KIAA0301 : ----- : -

      *           800           *           820           *           840
PCP0454 : DVLVMAVKLLIERATNQDWMLRVKWLYHLAKNIPQGLESIQIHLEASAASLRNFYSHSLS : 840
KIAA0301 : ----- : -

      *           860           *           880           *           900
PCP0454 : GAVSNVFKILOPNTTDEFVIPLDPRWNMQALDMIRNLMDFDPQTDQPDQLFALLESAANK : 900
KIAA0301 : ----- : -

      *           920           *           940           *           960
PCP0454 : TIIYLDREKRVFTEANLVSVGSKKLRESVLRMSFEFHQDPESYHTLPHEIVVNLAFFEL : 960
KIAA0301 : ----- : -

      *           980           *          1000           *          1020
PCP0454 : CDALVLLWVQSSQGMVSDASANEILGSLRWRDREFTVADTVKVDAPGLALLALHWHWVLK : 1020
KIAA0301 : ----- : -

      *          1040           *          1060           *          1080
PCP0454 : HLVHQIPRLLMNYEDKYYKEVQTVSEHIQNCCLGSQTGGFAGIKKLQKFLGRPFPPFKDKLV : 1080
KIAA0301 : ----- : -

      *          1100           *          1120           *          1140
PCP0454 : VECFSQLKVLNKNVLAIREQMSALGESGWQEDINRLQVVASQWTLKKSLLQAWGLILRANI : 1140
KIAA0301 : ----- : -

      *          1160           *          1180           *          1200
PCP0454 : LEDVSLDELKNFVHAQCLELKAQGLSLGFLEKKHDEASSLSHPDLTSVIHLTRSVQLWPA : 1200
KIAA0301 : ----- : -

      *          1220           *          1240           *          1260
PCP0454 : MEYLAMLWRYKVTADFMAQACLRRCCKNQPPQINEEISHLISFCLYHTPVTPQELRDLWS : 1260
KIAA0301 : ----- : -

      *          1280           *          1300           *          1320
PCP0454 : LLHHQKVSPEEITSLWSELFNSMFMSFWSSTVTNPEYWLMWNPLPGMQQREAPKSVLDS : 1320
KIAA0301 : ----- : -

      *          1340           *          1360           *          1380
PCP0454 : TLKGPGNLRNPIFSKCCFEVLTSSWRASPWDVSGLPILSSSHVTLGEWVERTQQLQDISS : 1380
KIAA0301 : ----- : -

      *          1400           *          1420           *          1440
PCP0454 : MLWTNMAISSVAEFRRTDSQLQGQVLFRLHLAGLAEALLPESRRQEYMQNCEQLLLGSSQAF : 1440
KIAA0301 : ----- : -

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FIG. 14B

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      *           1460           *           1480           *           1500
PCP0454 : QHVGQTLGDMAGQEVLPKELLCQLLTSLHHFVGESESKRSLPEPAQRGSLWVSLGLLQIQ : 1500
KIAA0301 : ----- : -

      *           1520           *           1540           *           1560
PCP0454 : TWLPQARFDPVAVKREYKLNIVKEELHQLQCEWKTRNLSSQLQOTGRDLEDEVVVSYSHEHV : 1560
KIAA0301 : ----- : -

      *           1580           *           1600           *           1620
PCP0454 : RLLRQRMDRLDNLTCHLLKKQAFRPQLPAYESLVQEIHHYVTSIAKAPAVQDLLTRLLQA : 1620
KIAA0301 : ----- : -

      *           1640           *           1660           *           1680
PCP0454 : LHIDGPRSAQVAQSLKKEEASWQQSHHQFRKRLSEEYTFYPDAVSPLQASILQLQHGMRL : 1680
KIAA0301 : ----- : -

      *           1700           *           1720           *           1740
PCP0454 : VASELHTSLYSSMVGADRLGTLATALLAFPSVGPTFPTYAHADTLCVSKSEEVLRGLGK : 1740
KIAA0301 : ----- : -

      *           1760           *           1780           *           1800
PCP0454 : LIILKRSGGKELEGKGQKACPTREQLLMNALLYLRSHVLCKGELDQRALQLFRHVCQEIIIS : 1800
KIAA0301 : ----- : -

      *           1820           *           1840           *           1860
PCP0454 : EWDEQERIAQEKAEQESGLYRYSRNSRTALSEEEEEERFRKQFPLHEKDFADILVQPT : 1860
KIAA0301 : ----- : -

      *           1880           *           1900           *           1920
PCP0454 : LEENKGTSDGQEEAGTNPALLSQNSMQAVMLIHQQQLCLNFARSLWYQQTLPPEAKHYL : 1920
KIAA0301 : -----MLIHQQQLCLNFARSLWYQQTLPPEAKHYL : 30

      *           1940           *           1960           *           1980
PCP0454 : SLFLSCYQTGASLVTHFYPLMGVELNDRLLGSQLLACTLSHNTLFGEAPSDLMVKPDGPY : 1980
KIAA0301 : SLFLSCYQTGASLVTHFYPLMGVELNDRLLGSQLLACTLSHNTLFGEAPSDLMVKPDGPY : 90

      *           2000           *           2020           *           2040
PCP0454 : DFYQHPNVPEARQCQPVLQGFSEAVSHLLQDWPEHPALEQLLVVMDRIRSFPLSSPISKF : 2040
KIAA0301 : DFYQHPNVPEARQCQPVLQGFSEAVSHLLQDWPEHPALEQLLVVMDRIRSFPLSSPISKF : 150

      *           2060           *           2080           *           2100
PCP0454 : LNGLEILLAKAQDWEENASRALSLRKHLDLISQMIIRWRKLELNCWSMSLDNTMKRHTEK : 2100
KIAA0301 : LNGLEILLAKAQDWEENASRALSLRKHLDLISQMIIRWRKLELNCWSMSLDNTMKRHTEK : 210

      *           2120           *           2140           *           2160
PCP0454 : STKHWFSIYQMLEKHMQEQTTEEQEDDKQMTLMLLVSTLQAFIEGSSLGEFHVRLQMLLVF : 2160
KIAA0301 : STKHWFSIYQMLEKHMQEQTTEEQEDDKQMTLMLLVSTLQAFIEGSSLGEFHVRLQMLLVF : 270

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FIG. 14C



		*	2180	*	2200	*	2220	
PCP0454	:	HCHVLLMPQVEGKDSLCSVLWNLYHYKQFFDRVQAKIVELRSPLEKELKEFVKISKWND						: 2220
KIAA0301	:	HCHVLLMPQVEGKDSLCSVLWNLYHYKQFFDRVQAKIVELRSPLEKELKEFVKISKWND						: 330
		*	2240	*	2260	*	2280	
PCP0454	:	VSFWSIKQSVEKTHRTLFKFMKKFEAVLSEPCRSSLVESDKEEQPDFLPRPTDGAASELS						: 2280
KIAA0301	:	VSFWSIKQSVEKTHRTLFKFMKKFEAVLSEPCRSSLVESDKEEQPDFLPRPTDGAASELS						: 390
		*	2300	*	2320	*	2340	
PCP0454	:	SIQNLNRLALRETLAQAAGQATIPWCQGAAPSGLEGELLRRLPKLRKMRMKCLTFMK						: 2340
KIAA0301	:	SIQNLNRLALRETLAQAAGQATIPWCQGAAPSGLEGELLRRLPKLRKMRMKCLTFMK						: 450
		*	2360	*	2380	*	2400	
PCP0454	:	ESPLPRLVEGLDQFTGEVISSVSELQSLKVEPSAEKEKORSEAKHILMOKQORALSDLFKH						: 2400
KIAA0301	:	ESPLPRLVEGLDQFTGEVISSVSELQSLKVEPSAEKEKORSEAKHILMOKQORALSDLFKH						: 510
		*	2420	*	2440	*	2460	
PCP0454	:	LAKIGLSYRKGLAWARSKNPQEMHLHLHPLDLQSALSIVSSTQEADSRLLTEISSWDGCG						: 2460
KIAA0301	:	LAKIGLSYRKGLAWARSKNPQEMHLHLHPLDLQSALSIVSSTQEADSRLLTEISSWDGCG						: 570
		*	2480	*	2500	*	2520	
PCP0454	:	KYFYRSLARHARLNAALATPAKEMGMGNVERCRGFSAHLMKMLVRQRRSLTTLSEQWIIIL						: 2520
KIAA0301	:	KYFYRSLARHARLNAALATPAKEMGMGNVERCRGFSAHLMKMLVRQRRSLTTLSEQWIIIL						: 630
		*	2540	*	2560	*	2580	
PCP0454	:	RNLLSCVQEIHSLRMGPQAYPVAFPPQDGVQQWTERLQHLAMQCQILLEQLSWLLQCCPS						: 2580
KIAA0301	:	RNLLSCVQEIHSLRMGPQAYPVAFPPQDGVQQWTERLQHLAMQCQILLEQLSWLLQCCPS						: 690
		*	2600	*	2620	*	2640	
PCP0454	:	VGPAPGHGNVQVLGQPPGPCLEGPELSKGQQLCGVVLDLIPSNLSYPSPIPGSQLPFGCRM						: 2640
KIAA0301	:	VGPAPGHGNVQVLGQPPGPCLEGPELSKGQQLCGVVLDLIPSNLSYPSPIPGSQLPFGCRM						: 750
		*	2660	*	2680	*	2700	
PCP0454	:	RKQDHLWQQSTTRLTEMLKTIKTVKADVDKIRQQSCETLFHSWKDFEVCSSALSCLSQVS						: 2700
KIAA0301	:	RKQDHLWQQSTTRLTEMLKTIKTVKADVDKIRQQSCETLFHSWKDFEVCSSALSCLSQVS						: 810
		*	2720	*	2740	*	2760	
PCP0454	:	VHLQGLSFLFILPGMEVEQRDSQMALVESLEYVRGEISKAMADFTTWKTHLLTSDSQGGN						: 2760
KIAA0301	:	VHLQGLSFLFILPGMEVEQRDSQMALVESLEYVRGEISKAMADFTTWKTHLLTSDSQGGN						: 870
		*	2780	*	2800	*	2820	
PCP0454	:	QMLDEGFVEDFSEQMEIAIRAILCAIQNLEERKNEKAEENTDQASPOEDYAGFERLQSGH						: 2820
KIAA0301	:	QMLDEGFVEDFSEQMEIAIRAILCAIQNLEERKNEKAEENTDQASPOEDYAGFERLQSGH						: 930
		*	2840	*	2860	*	2880	
PCP0454	:	LTKLLEDDFWADVSTLHVQKIISAISELLERLKSYGEDGTAAKHLFFSQSCSLVRLVPV						: 2880
KIAA0301	:	LTKLLEDDFWADVSTLHVQKIISAISELLERLKSYGEDGTAAKHLFFSQSCSLVRLVPV						: 990

FIG. 14D

		*	2900	*	2920	*	2940	
PCP0454	:	LSSYSDDLVLFFLTMSLATHRSTAKLLSVLAQVFTELAQKGFCLPKEFMEDSAGEGATEFH						: 2940
KIAA0301	:	LSSYSDDLVLFFLTMSLATHRSTAKLLSVLAQVFTELAQKGFCLPKEFMEDSAGEGATEFH						: 1050
		*	2960	*	2980	*	3000	
PCP0454	:	DYEGGGIGEGEGMKDVSQIGNEEQVEDTFQKGQEKDKEDPDSKSDIKGEDNAIEMSEDF						: 3000
KIAA0301	:	DYEGGGIGEGEGMKDVSQIGNEEQVEDTFQKGQEKDKEDPDSKSDIKGEDNAIEMSEDF						: 1110
		*	3020	*	3040	*	3060	
PCP0454	:	DGKMHGDELEEQEEDDEKSDSEGGDLDKHMGDLNGEADKLDERLWGGDDDEEEDDEEEDN						: 3060
KIAA0301	:	DGKMHGDELEEQEEDDEKSDSEGGDLDKHMGDLNGEADKLDERLWGGDDDEEEDDEEEDN						: 1170
		*	3080	*	3100	*	3120	
PCP0454	:	KTEETGPGMDEEDSELVAKDDNLDSGNSNKDKSQQDKKEEKEEAEADDGGQGEDKINEQI						: 3120
KIAA0301	:	KTEETGPGMDEEDSELVAKDDNLDSGNSNKDKSQQDKKEEKEEAEADDGGQGEDKINEQI						: 1230
		*	3140	*	3160	*	3180	
PCP0454	:	DERDYDENEVDPHYHGNQEKVPEPEALDLPDDLNLDSKNGGEDTDNEEGEEENPLEIKE						: 3180
KIAA0301	:	DERDYDENEVDPHYHGNQEKVPEPEALDLPDDLNLDSKNGGEDTDNEEGEEENPLEIKE						: 1290
		*	3200	*	3220	*	3240	
PCP0454	:	KPEEAGHEAEERGETETDQNESQSPQEPPEEGPSEDDKAEGEEEMDTGADDQDGDAAQHPE						: 3240
KIAA0301	:	KPEEAGHEAEERGETETDQNESQSPQEPPEEGPSEDDKAEGEEEMDTGADDQDGDAAQHPE						: 1350
		*	3260	*	3280	*	3300	
PCP0454	:	EHSEEQQQSVEEKDKEADEEGGNGPADQGFQPPQEEEREDSDTEEQVPEALERKEHASC						: 3300
KIAA0301	:	EHSEEQQQSVEEKDKEADEEGGNGPADQGFQPPQEEEREDSDTEEQVPEALERKEHASC						: 1410
		*	3320	*	3340	*	3360	
PCP0454	:	GQTGVENMQNTQAMELAGAAPEKEQGKEEHGSGAADANQAEGHESNFIAQLASQKHTRKN						: 3360
KIAA0301	:	GQTGVENMQNTQAMELAGAAPEKEQGKEEHGSGAADANQAEGHESNFIAQLASQKHTRKN						: 1470
		*	3380	*	3400	*	3420	
PCP0454	:	TQSFKRKPGQADNERSMGDNHNRVHKRLRTVDTDSHAEQGPQQPQAQVEDADAFEHIKQ						: 3420
KIAA0301	:	TQSFKRKPGQADNERSMGDNHNRVHKRLRTVDTDSHAEQGPQQPQAQVEDADAFEHIKQ						: 1530
		*	3440	*	3460	*	3480	
PCP0454	:	GSDAYDAQTYDVASKEQQQSAKDSGKDQEEEEIEDTLMDTEEQEEFKAADVEQLKPEEIK						: 3480
KIAA0301	:	GSDAYDAQTYDVASKEQQQSAKDSGKDQEEEEIEDTLMDTEEQEEFKAADVEQLKPEEIK						: 1590
		*	3500	*	3520	*	3540	
PCP0454	:	SGTTAPLGFDEMEVEIQTVKTEEDQDPRTDKAHKETENEKPEERSRESTIHTAHQFLMDTI						: 3540
KIAA0301	:	SGTTAPLGFDEMEVEIQTVKTEEDQDPRTDKAHKETENEKPEERSRESTIHTAHQFLMDTI						: 1650
		*	3560	*	3580	*	3600	
PCP0454	:	FQPFLLKDVNELRQELERQLEMWQPRESGNPEEEKVAAEMWQSYLILTAPLSQRLCEEELRL						: 3600
KIAA0301	:	FQPFLLKDVNELRQELERQLEMWQPRESGNPEEEKVAAEMWQSYLILTAPLSQRLCEEELRL						: 1710

FIG. 14E

PCP0454	:		*	3620	*	3640	*	3660	
KIAA0301	:	I	L	E	P	T	Q	A	A
	:	K	G	D	Y	R	T	G	K
	:	R	L	N	I	R	K	V	I
	:	P	Y	I	A	S	Q	F	R
	:	K	D	K	I	W	L	R	R
	:	T	K	P	S	K	R	O	Y
	:	Q	I	C	L	A	I	D	D
	:	S	S						
	:								3660
	:								1770
PCP0454	:		*	3680	*	3700	*	3720	
KIAA0301	:	S	M	V	D	N	H	T	K
	:	Q	L	A	F	E	S	L	A
	:	V	I	G	N	A	L	T	L
	:	L	L	E	V	G	Q	I	A
	:	V	C	S	F	G	E	S	V
	:	K	L	L	H	P	F	H	E
	:	Q	F	S	D	Y	S	G	S
	:	Q	I	L	R	L			
	:								3720
	:								1830
PCP0454	:		*	3740	*	3760	*	3780	
KIAA0301	:	C	K	F	Q	K	K	T	K
	:	I	A	Q	F	L	E	S	V
	:	A	N	M	F	A	A	A	Q
	:	Q	L	S	Q	N	I	S	S
	:	E	T	A	Q	L	L	L	V
	:	V	S	D	G	R	G	L	F
	:	L	E	G	K	E	R	V	L
	:	A	A	V					
	:								3780
	:								1890
PCP0454	:		*	3800	*	3820	*	3840	
KIAA0301	:	Q	A	A	R	N	A	N	I
	:	F	V	I	F	V	L	D	N
	:	P	S	S	R	D	S	I	L
	:	D	I	K	V	P	I	F	K
	:	G	P	G	E	M	P	E	I
	:	R	S	Y	M	E	E	F	F
	:	P	P	Y	I	I	L	R	D
	:	V	N						
	:								3840
	:								1950
PCP0454	:		*	3860					
KIAA0301	:	A	L	P	E	T	L	S	D
	:	A	L	R	Q	W	F	E	L
	:	V	T	A	S	D	H	P	
	:								3863
	:								1973

FIG. 14F

PCP0557	:	MAAAAVVVP	AEWIKNWEK	SGRGEFLH	LCRILSENK	SHDSSTYR	DFQQALYEL	SYHVIKGN	:	60	
AF441770	:	-----								:	-
PCP0557	:	LKHEQASNV	LSDISEFRED	MPILADVFC	ILDITNCLE	EKSKRDYFT	QVLVLACLY	LVSD	:	120	
AF441770	:	-----								:	-
PCP0557	:	TVLKERLDP	PETLESLGLI	KSQQFNQKS	VKIKTKLFY	KQKFNLLRE	ENEGYAKLIA	EELG	:	180	
AF441770	:	-----								:	-
PCP0557	:	QDLGSGITS	DLILENIKSL	IGCFNLDP	NRVLVDVILE	VFECPREHDD	FFISLLESYMS	MCE	:	240	
AF441770	:	-----								:	3
PCP0557	:	PQTLCHILG	FKFKFYQEP	NGETPSSLYR	VAAVLLQFN	LIDLDDLYV	HLLPADNCIM	DEHK	:	300	
AF441770	:	PQTLCHILGFKFKFYQEPNGETPSSLYRVA								:	63
PCP0557	:	REIAEAKQI	VRKLTMVVL	SSEKMDERE	KEKEKEEEE	KEVEKPPDN	QKLGLEALLK	IGDWQH	:	360	
AF441770	:	REIAEAKQIVRKLTMVVLSSSEKMDEREKEKEEEEKEVEKPPDNQKLGLEALLKIGDWQH								:	123
PCP0557	:	AQNIMDQMP	PPYAAASHK	LIALAICKLI	HITIEPLYR	RVGVPGAKG	SPVNALQNK	RAPKQ	:	420	
AF441770	:	AQNIMDQMPPPYAAASHKLI								:	183
PCP0557	:	AESFEDLRD	VFNMF	CYLGPHLSH	DPILFAKV	VRIGKSF	MKEFQSDG	SKQEDKEK	TEVIL	:	480
AF441770	:	AESFEDLRDVFNMFCYLGPHLSHDPILFAKVVRIGKSF								:	243
PCP0557	:	SCLLSITDQ	VLLPSLSL	MDCNACMSE	ELWGMFKT	FPYQHRYR	LYGQWKNET	YNSHPLLVK	:	540	
AF441770	:	SCLLSITDQVLLPSLSLMDCNACMSEELWGMFKT								:	303
PCP0557	:	VKAQTI	DRAKYIMK	RLTKENV	KPSGRQIG	KLSHSNPT	ILFDYILS	QIQYDNLIT	PPVDS	:	600
AF441770	:	VKAQTI								:	363
PCP0557	:	LKYLTS	LNVDVLA	YCIIEALAN	PEKERMKH	DDTTISSW	LQSLASFC	GA	VRKYPIDLAGL	:	660
AF441770	:	LKYLTS								:	423
PCP0557	:	LQYVANQ	LKAGKSF	DLILLKEV	VQKMAGIE	ITEEMTNE	QLEAMT	GGEQLKAE	GGYFGQIR	:	720
AF441770	:	LQYVANQ								:	483
PCP0557	:	NTKKSSQ	RLKDALLD	HDALPLC	LLMAQQR	NGVIFQEG	GKHLKLVG	KLYDQCH	DTLVQF	:	780
AF441770	:	NTKKSSQ								:	543

FIG. 15A

		*	800	*	820	*	840	
PCP0557	:	GGFLASNLSTEDYIKRVPSIDVLCNEFHTPHDAFFLSRPMYAHHISSEKYDELKKSEKGS						: 840
AF441770	:	GGFLASNLSTEDYIKRVPSIDVLCNEFHTPHDAFFLSRPMYAHHISSEKYDELKKSEKGS						: 603

		*	860	*	880	*	900	
PCP0557	:	KQQHKVHKYITSCEMVMAPVHEAVVSLHVSQVWDDISQFYATFWSLTMYDLAVPHTSYE						: 900
AF441770	:	KQQHKVHKYITSCEMVMAPVHEAVVSLHVSQVWDDISQFYATFWSLTMYDLAVPHTSYE						: 663

		*	920	*	940	*	960	
PCP0557	:	REVNKLKVQMKAIIDNQEMPPNKKKKKEKERCTALQDKLLEEEKKQMEHVQRLQRLKLEK						: 960
AF441770	:	REVNKLKVQMKAIIDNQEMPPNKKKKKEKERCTALQDKLLEEEKKQMEHVQRLQRLKLEK						: 723

		*	980	*	1000	*	1020	
PCP0557	:	DNWLLAKSTKNETITKFLQLCIFPRCIFSAIDAVYCARFVELVHQKTPNFSTLLCYDRV						: 1020
AF441770	:	DNWLLAKSTKNETITKFLQLCIFPRCIFSAIDAVYCARFVELVHQKTPNFSTLLCYDRV						: 783

		*	1040	*	1060	*	1080	
PCP0557	:	FSDIIYTVASCTENEASRYGRFLCCMLETVTRWHSRATYKECEGNYPGFLTILRATGFD						: 1080
AF441770	:	FSDIIYTVASCTENEASRYGRFLCCMLETVTRWHSRATYKECEGNYPGFLTILRATGFD						: 843

		*	1100	*	1120	*	1140	
PCP0557	:	GGNKADQLDYENFRHVHVKWHYKLTASVHCLETGEYTHIRNIIIVLTKILPWYPKVLNL						: 1140
AF441770	:	GGNKADQLDYENFRHVHVKWHYKLTASVHCLETGEYTHIRNIIIVLTKILPWYPKVLNL						: 903

		*	1160	*	1180	*	1200	
PCP0557	:	GQALERRVHKICQEEKEKRPDIYALAMGYSGQLKSRSYMIPENEFHKKDPPPRNAVASV						: 1200
AF441770	:	GQALERRVHKICQEEKEKRPDIYALAMGYSGQLKSRSYMIPENEFHKKDPPPRNAVASV						: 963

		*	1220	*	1240	*	1260	
PCP0557	:	QNGPGGGPSSSSIGSASKSDESSTEETDKSRERSQCGVKAVNKASSTPKGNSSNGNSGS						: 1260
AF441770	:	QNGPGGGPSSSSIGSASKSDESSTEETDKSRERSQCGVKAVNKASSTPKGNSSNGNSGS						: 1023

		*	1280	*	1300	*	1320	
PCP0557	:	NSNKAVKENDKEKGKEKEKEKKEKTPATTFEARVLGKDGKEKPKEERPKNKDEKARETKER						: 1320
AF441770	:	NSNKAVKENDKEKGKEKEKEKKEKTPATTFEARVLGKDGKEKPKEERPKNKDEKARETKER						: 1083

		*	1340	*	1360	*	1380	
PCP0557	:	TPKSDKEKEKFKKEEKAKDEKFKTTVPNAESKSTQEREREKEPSRERDIAKEMKSKENVK						: 1380
AF441770	:	TPKSDKEKEKFKKEEKAKDEKFKTTVPNAESKSTQEREREKEPSRERDIAKEMKSKENVK						: 1143

		*	1400	*	1420	*	1440	
PCP0557	:	GGEKTPVSGSLKSPVPRSDIPEPEREQRRKIDTHPSPSHSSTVKDSLIELKESAKLYI						: 1440
AF441770	:	GGEKTPVSGSLKSPVPRSDIPEPEREQRRKIDTHPSPSHSSTVKDSLIELKESAKLYI						: 1203

		*	1460	*	1480	*	1500	
PCP0557	:	NHTPPPLSKSKEREMDKDLKSRERSREREKKDEKDRKERKRDRHSNNDREVPPDLTKRR						: 1500
AF441770	:	NHTPPPLSKSKEREMDKDLKSRERSREREKKDEKDRKERKRDRHSNNDREVPPDLTKRR						: 1263

FIG. 15B

PCP0557 : \* 1520 \* 1540 \* 1560  
AF441770 : KEENGTMGVSKHKSESPCESPYPNEKDKEKNKSKSSGKEKGSDFKSEKMDKISSGGKKE : 1560  
KEENGTMGVSKHKSESPCESPYPNEKDKEKNKSKSSGKEKGSDFKSEKMDKISSGGKKE : 1323

PCP0557 : \* 1580 \*  
AF441770 : SRHDKEKIEKKEKRDSSGGKEEKHHKSSDKHR : 1593  
SRHDKEKIEKKEKRDSSGGKEEKHHKSSDKHR : 1356

FIG. 15C

```
          *      20      *      40      *      60
PCP0762 : MSGEATVLAYHAPEEQEGLLVVKVEEENYVLDQDFGLQENPWSQEVFRQKFRQFSYSDST : 60
XM_085817 : MSGEATVLAYHAPEEQEGLLVVKVEEENYVLDQDFGLQENPWSQEVFRQKFRQFSYSDST : 60

          *      80      *      100      *      120
PCP0762 : GPREALSRLRELCCQWLRPEVH--SKE--QILELLMLEQFLAILPEELQAWLREHRPENG : 116
XM_085817 : GPREALSRLRELCCQWLRPEVCMCSKECMSILELLMLEQFLAILPEELQAWLREHRQRME : 120

          *      140      *      160      *      180
PCP0762 : EEAVTMLEELEKELESPRQDDTHSQEMFWQEMTSTGALKSLSLNSPVQPLENQCKTETQ : 176
XM_085817 : GNCDYAGGAGKNWRSQGTDAKCSQRK----- : 147

          *      200      *      220
PCP0762 : ESQAFQERDGVSLCHPGWSAVVQPRLTAAALNPWVRVILLPRPPE : 221
XM_085817 : ----- : -
```

FIG. 16

		*	20	*	40	*	60	
PCP0806	:	MGKKLDLSKLTDEEAQHVLEVVRDFDLRRKEEERLEALKGKIKKESKRELLSDTAHLN					:	60
AK022207	:	MGKKLDLSKLTDEEAQHVLEVVRDFDLRRKEEERLEALKGKIKKESKRELLSDTAHLN					:	60
		*	80	*	100	*	120	
PCP0806	:	ETHCARCLQPYQLLVNSKRQCLECGLETCKSCGRVHPPEEQGWICDPCHLARVVKIGSLEW					:	120
AK022207	:	ETHCARCLQPYQLLVNSKRQCLECGLETCKSCGRVHPPEEQGWICDPCHLARVVKIGSLEW					:	120
		*	140	*	160	*	180	
PCP0806	:	YYEHVKARFKRFGSAKVIRSLHGRLQGGAGPELISEERSGDSQDQDDEGEPGSEAQAQAQ					:	180
AK022207	:	YYEHVKARFKRFGSAKVIRSLHGRLQGGAGPELISEERSGDSQDQDDEGEPGSEAQAQAQ					:	180
		*	200	*	220	*	240	
PCP0806	:	PFGSKKKRLLSVHDFDFEGDSDSTQPGHSLHLSSVPEARDSPQSLTDESCSEKAAPHK					:	240
AK022207	:	PFGSKKKRLLSVHDFDFEGDSDSTQPGHSLHLSSVPEARDSPQSLTDESCSEKAAPHK					:	240
		*	260	*	280	*	300	
PCP0806	:	AEGLEEADTGASGCHSHPEEQPTSISPSRHGALAEPCPPGGSHRMALGTAAALGSNVIRN					:	300
AK022207	:	AEGLEEADTGASGCHSHPEEQPTSISPSRHGALAEPCPPGGSHRMALGTAAALGSNVIRN					:	300
		*	320	*	340	*	360	
PCP0806	:	EQLPLQYLADVDTSDDESIRAHVMASHHSKRRGRASSESQIFELNKHISAVECLLTYLEN					:	360
AK022207	:	EQLPLQYLADVDTSDDESIRAHVMASHHSKRRGRASSESQIFELNKHISAVECLLTYLEN					:	360
		*	380	*	400	*	420	
PCP0806	:	TVVPPLAKGLGAGVRTEADVVEEALRRKLEELTSNVSDQETSSEEEAAKDEKAEPNRDKS					:	420
AK022207	:	TVVPPLAKGLGAGVRTEADVVEEALRRKLEELTSNVSDQETSSEEEAAKDEKAEPNRDKS					:	420
		*	440	*	460	*	480	
PCP0806	:	VGPLPQADPEV-----					:	431
AK022207	:	VGPLPQADPEVGTAAHQTNRQEKSPQDPGDPVQYNRTTDEELSELEDRVAVTASEVQQAE					:	480
		*	500	*	520	*	540	
PCP0806	:	---SDIESRIAALRAAGLTVKPSGKPRRKSNIPIFLPRVAGKLGKRPEDPNADPSSEAKA					:	488
AK022207	:	SEVSDIESRIAALRAAGLTVKPSGKPRRKSNIPIFLPRVAGKLGKRPEDPNADPSSEAKA					:	540
		*	560	*	580	*	600	
PCP0806	:	MAVPYLLRRKFSNSLKSQGGKDDDSFDRKSVYRGS LTQRNPNARKGMASHTFAKPVVAHQ					:	548
AK022207	:	MAVPYLLRRKFSNSLKSQGGKDDDSFDRKSVYRGS LTQRNPNARKGMASHTFAKPVVAHQ					:	600

FIG. 17



		*	20	*	40	*	60	
XM_033473	:	MSRRK	QRPQQLISDCEGFS	ASENGD	ASEEDHPQVCAKCCAQFTD	PTEFLAHQ	NACSTD	60
AK001276	:	MSRRK	QRPQQLISDCEGFS	ASENGD	ASEEDHPQVCAKCCAQFTD	PTEFLAHQ	NACSTD	60
PCP0815A	:	MAHESERS-SRLGVPCGEP	-AELGGD	ASEEDHPQVCAKCCAQFTD	PTEFLAHQ	NACSTD	58	
PCP0815C	:	MAHESERS-SRLGVPCGEP	-AELGGD	ASEEDHPQVCAKCCAQFTD	PTEFLAHQ	NACSTD	58	

		*	80	*	100	*	120	
XM_033473	:	PVMVI	IGGQENPNNSSASSEPR	PEGHNNPQVMDTEHSN	PDPGSSVPTDPTWGP	PERRGEE	120	
AK001276	:	PVMVI	IGGQENPNNSSASSEPR	PEGHNNPQVMDTEHSN	PDPGSSVPTDPTWGP	PERRGEE	120	
PCP0815A	:	PVMVI	IGGQENPNNSSASSEPR	PEGHNNPQVMDTEHSN	PDPGSSVPTDPTWGP	PERRGEE	118	
PCP0815C	:	PVMVI	IGGQENPNNSSASSEPR	PEGHNNPQVMDTEHSN	PDPGSSVPTDPTWGP	PERRGEE	118	

		*	140	*	160	*	180	
XM_033473	:	SSGHFLVAAT	GTAAGGGGGLILASPKLGATPLPPEST	PAPPPPPPPPPPGVGS	GHLNIP	180		
AK001276	:	SSGHFLVAAT	-----	-----	-----	130		
PCP0815A	:	SSGHFLVAAT	GTAAGGGGGLILASPKLGATPLPPEST	PAPPPPPPPPPPGVGS	GHLNIP	178		
PCP0815C	:	SSGHFLVAAT	-----	-----	-----	128		

		*	200	*	220	*	240	
XM_033473	:	LILEELRVLQQRQIHQM	QMTQICRQVLLLSGLGQTVGAPAS	PSSELPGTGTASSTKPLLP	240			
AK001276	:	-----	-----	-----	-			
PCP0815A	:	LILEELRVLQQRQIHQM	QMTQICRQVLLLSGLGQTVGAPAS	PSSELPGTGTASSTKPLLP	238			
PCP0815C	:	-----	-----	-----	-			

		*	260	*	280	*	300	
XM_033473	:	LFSPIKPVQTSKTLASSSSSSSSSGAETPKQ	AFFHLYHPLG	SQHPSAGGVGRSHKPTP	300			
AK001276	:	-----	-----	-----	-			
PCP0815A	:	LFSPIKPVQTSKTLASSSSSSSSSGAETPKQ	AFFHLYHPLG	SQHPSAGGVGRSHKPTP	298			
PCP0815C	:	-----	-----	-----	-			

		*	320	*	340	*	360	
XM_033473	:	APSPALPGSTDQLIASPHLAF	PSTTGLLAAQCLGAARGLEATAS	PGLLKPKNGSGELSYG	360			
AK001276	:	-----	-----	-----	-			
PCP0815A	:	APSPALPGSTDQLIASPHLAF	PSTTGLLAAQCLGAARGLEATAS	PGLLKPKNGSGELSYG	358			
PCP0815C	:	-----	-----	-----	-			

		*	380	*	400	*	420	
XM_033473	:	EVMGPLEKPGGRHKCRFCAK	VFGSDSALQIHLSHTGERPYKCNVCGNRFT	TRGNLKVHF	420			
AK001276	:	-----	-----	-----	-			
PCP0815A	:	EVMGPLEKPGGRHKCRFCAK	VFGSDSALQIHLSHTGERPYKCNVCGNRFT	TRGNLKVHF	418			
PCP0815C	:	-----	-----	-----	-			

		*	440	*	460	*	480	
XM_033473	:	HRHREKYPHVQMNPHVP	PEHLDYVITSSGLPYGMSVPPEKAE	EEAATPGGGVERKPLVAS	480			
AK001276	:	-----	-----	-----	-			
PCP0815A	:	HRHREKYPHVQMNPHVP	PEHLDYVITSSGLPYGMSVPPEKAE	EEAATPGGGVERKPLVAS	478			
PCP0815C	:	-----	-----	-----	-			

FIG. 18A

		*	500	*	520	*	540	
XM_033473	:	TTALSATESL	TLLSTSAGTATAPGLPAFNKFVLMKAVEPKNKADENTPPGSEGS	SAISGVA	:	540		
AK001276	:	-----	-----	-----	:	-		
PCP0815A	:	TTALSATESL	TLLSTSAGTATAPGLPAFNKFVLMKAVEPKNKADENTPPGSEGS	SAISGVA	:	538		
PCP0815C	:	-----	-----	-----	:	-		

		*	560	*	580	*	600	
XM_033473	:	ESSTATRMQLSKLVTSLPSWALLTNHFKSTGSFFFPYVLEPLGASPSETSKLQQLVEKID	:	600				
AK001276	:	-----	-----	-----	:	-		
PCP0815A	:	ESSTATRMQLSKLVTSLPSWALLTNHFKSTGSFFFPYVLEPLGASPSETSKLQQLVEKID	:	598				
PCP0815C	:	-----	-----	-----	:	-		

		*	620	*	640	*	660	
XM_033473	:	RQGAVAVTSAASGAPTTAPAPSSSASSGPNQCVICLRVLS	CPRALRLHYGQHGGGERPFK	:	660			
AK001276	:	-----	-----	-----	:	-		
PCP0815A	:	RQGAVAVTSAASGAPTTAPAPSSSASSGPNQCVICLRVLS	CPRALRLHYGQHGGGERPFK	:	658			
PCP0815C	:	-----	-----	-----	:	-		

		*	680	*	700	*	720	
XM_033473	:	CKVCGRAFSTRGNLRAHFVGHKASPAARAQNSCPICQKKFTNAVTLQQHVRMHLGGQIPN	:	720				
AK001276	:	-----	-----	-----	:	-		
PCP0815A	:	CKVCGRAFSTRGNLRAHFVGHKASPAARAQNSCPICQKKFTNAVTLQQHVRMHLGGQIPN	:	718				
PCP0815C	:	-----	-----	-----	:	-		

		*	740	*	760	*	780	
XM_033473	:	GGTALPEGGGAAQENGSEQSTVSGARSFPQQSQQPSPEEELSEEEEEDEEEEEEDVTDE	:	780				
AK001276	:	-----	-----	-----	:	-		
PCP0815A	:	GGTALPEGGGAAQENGSEQSTVSGAGSFPQQSQQPSPEEELSEEEEEDEEEEEEDVTDE	:	778				
PCP0815C	:	-----	-----	-----	:	-		

		*	800	*	820	*	840	
XM_033473	:	DSLARGSESSEGEKAISVRGDSEESAGAEVEVGTAAAAATAGKEMDSNEKTTQSSSLPPP	:	840				
AK001276	:	-----	-----	-----	:	-		
PCP0815A	:	DSLARGSESSEGEKAISVRGDSEESAGAEVEVGTAAAAATAGKEMDSNEKTTQSSSLPPP	:	838				
PCP0815C	:	-----	-----	-----	:	-		

		*	860	*	880	*	900	
XM_033473	:	PPPDSDLQQPMEQGSSGVLGGKEEGGKPERSSSPASALTPEGEATSVTLVEELSLOEAM	:	900				
AK001276	:	-----	-----	-----	:	-		
PCP0815A	:	PPPDSDLQQPMEQGSSGVLGGKEEGGKPERSSSPASALTPEGEATSVTLVEELSLOEAM	:	898				
PCP0815C	:	-----	-----	-----	:	-		

		*	920	*	940	*	960	
XM_033473	:	RKEPGESSSRKACEVCGQAFPSQAALAEHQKTHPKEGPLFTCVFCRQGFLE	RATLKKHML	:	960			
AK001276	:	-----	-----	-----	:	-		
PCP0815A	:	RKEPGESSSRKACEVCGQAFPSQAALAEHQKTHPKEGPLFTCVFCRQGFLE	RATLKKHML	:	958			
PCP0815C	:	-----	-----	-----	:	-		

FIG. 18B

```
          *          980          *          1000          *          1020
XM_033473 : LAHHQVQPFAPHGPQNI AALSLVPGCSPSITSTGLSPFPRKDDFTIP----- : 1007
AK001276  : -----EPVCGIPVKWPAHEALEFQLHLHYHSPKPGPTSAVWPRNCGWEGASNNGIQ : 180
PCP0815A  : LAHHQVQPFAPHGPQNI AALSLVPGCSPSITSTGLSPFPRKDDFTIP----- : 1005
PCP0815C  : -----EPVCGIPVKWPAHEALEFQLHLHYHSPKPGPTSAVWPRNCGWEGASNNGIQ : 178
```

```
          *          1040
XM_033473 : ----- : -
AK001276  : GSQGEDSPPPISASCTQGSA : 200
PCP0815A  : ----- : -
PCP0815C  : GSQGEDSPPPISASCTQGSA : 198
```

FIG. 18C

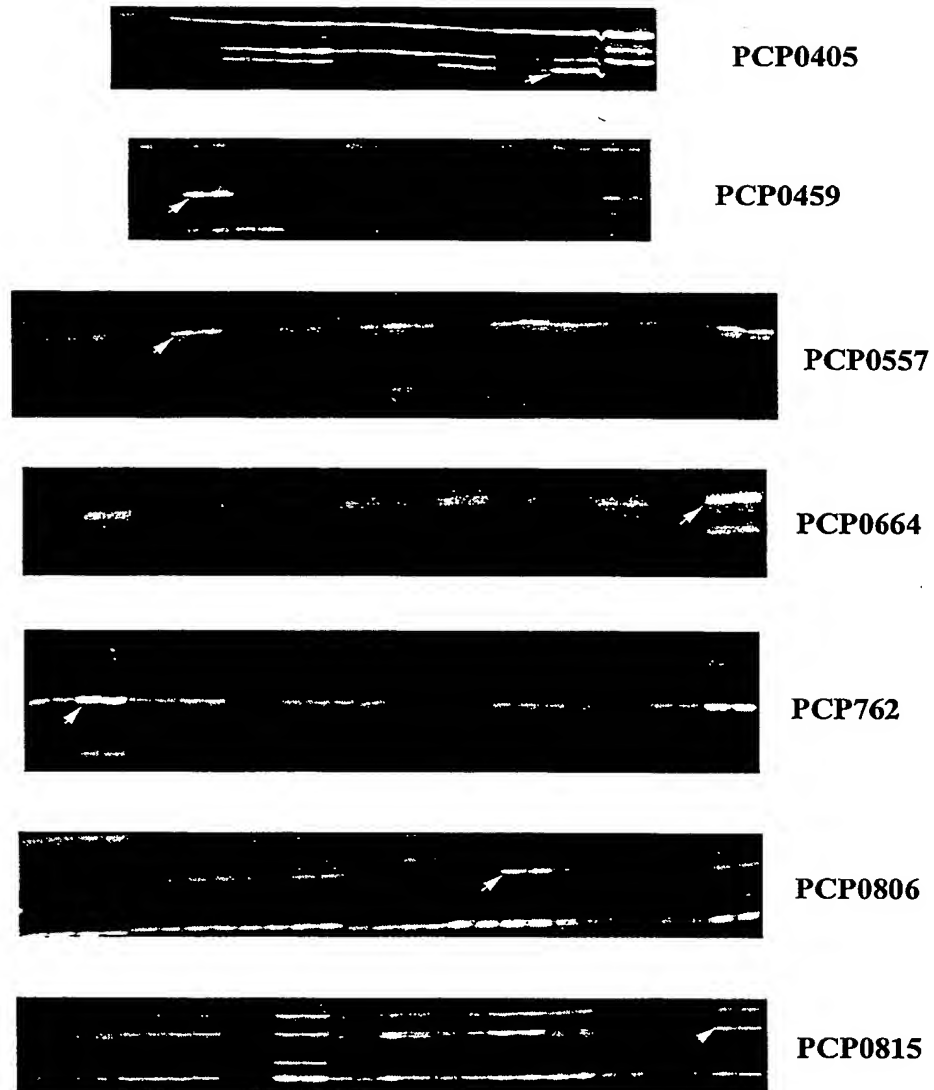


FIG 19

	180	*	200	*	220	*
AF239045	:	AARKGHLECVKHL	LAMGADV	QEGANSMTALI	VAVKGGYTQSV	KEILKRNPNVNLTDKD
AF313464	:	AARKGHLECVKHL	LAMGADV	QEGANSMTALI	VAVKGGYTQSV	KEILKRNPNVNLTDKD
PG473	:	AARKGHLECVKHL	LAMGADV	QEGANSMTALI	VAVKGGYTQSV	KEILKRNPNVNLTDKD
AB033076	:	AARKGHLECVKHL	LAMGADV	QEGANSMTALI	VAVKGGYTQSV	KEILKRNPNVNLTDKD
XM 045362	:	AARKGHLECVKHL	LAMGADV	QEGANSMTALI	VAVKGGYTQSV	KEILKRNPNVNLTDKD

**FIG 20A**

AF239045	:	GNTALMTASKEGHI	*		260	*		280	*		294
AF313464	:	GNTALMTASKEGHI		240							295
PC473	:	GNTALMTASKEGHT									295
AB033076	:	GNTALMTASKEGHT									294
XM_045362	:	GNTALMTASKEGHT									294
AF239045	:	IDIRGQDNKKTALYWAVEKEGNATMV	*		320	*		340	*		353
AF313464	:	IDIRGQDNKKTALYWAVEKEGNATMV		300							354
PC473	:	IDIRGQDNKKTALYWAVEKEGNATMV									354
AB033076	:	IDIRGQDNKKTALYWAVEKEGNATMV									353
XM_045362	:	IDIRGQDNKKTALYWAVEKEGNATMV									353
AF239045	:	LLDKGAKVSAVDKKGGDTPLHVAIRGR	*		380	*		400	*		412
AF313464	:	LLDKGAKVSAVDKKGGDTPLHVAIRGR		360							413
PC473	:	LLDKGAKVSAVDKKGGDTPLHVAIRGR									413
AB033076	:	LLDKGAKVSAVDKKGGDTPLHVAIRGR									412
XM_045362	:	LLDKGAKVSAVDKKGGDTPLHVAIRGR									412
AF239045	:	SHOKSILTQIFGARHLSPTETDGM	*		440	*		460	*		471
AF313464	:	SHOKSILTQIFGARHLSPTETDGM		420							472
PC473	:	SHOKSILTQIFGARHLSPTETDGM									472
AB033076	:	SHOKSILTQIFGARHLSPTETDGM									471
XM_045362	:	SHOKSILTQIFGARHLSPTETDGM									471

FIG 20B

AF239045	:	KSFLLKKLEDEMKTFAAGQQTEPLFQFSWLLIVFLTLLCCGGLGLVFAFVDTNMLAIAISL	:	530
AF313464	:	KSFLLKKLEDEMKTFAAGQQTEPLFQFSWLLIVFLTLLCCGGLGLVFAFVDTNMLAIAISL	:	531
PC473	:	KSFLLKKLEDEMKTFAAGQQTEPLFQFSWLLIVFLTLLCCGGLGLLFAFVHPNLCIAVSL	:	531
AB033076	:	KSFLLKKLEDEMKTFAAGQQTEPLFQFSWLLIVFLTLLCCGGLGLLFAFVHPNLCIAVSL	:	530
XM_045362	:	KSFLLKKLEDEMKTFAAGQQTEPLFQFSWLLIVFLTLLCCGGLGLLFAFVHPNLCIAVSL	:	530
AF239045	:	SFLALIYIFFIVIFGGRREGESMNWAMALSTRLARHIGYLELLEIFKLMFVNPPPELPEQT	:	589
AF313464	:	SFLALIYIFFIVIFGGRREGESMNWAMALSTRLARHIGYLELLEIFKLMFVNPPPELPEQT	:	590
PC473	:	SFLALIYIFFIVIFGGRREGESMNWAMALSTRLARHIGYLELLEIFKLMFVNPPPELPEQT	:	590
AB033076	:	SFLALIYIFFIVIFGGRREGESMNWAMALSTRLARHIGYLELLEIFKLMFVNPPPELPEQT	:	589
XM_045362	:	SFLALIYIFFIVIFGGRREGESMNWAMALSTRLARHIGYLELLEIFKLMFVNPPPELPEQT	:	589
AF239045	:	TKALPVRELEFTDYNRLSSVGGETSLAEMIATLSDACEREFGLATRLFRVFEETESQCK	:	648
AF313464	:	TKALPVRELEFTDYNRLSSVGGETSLAEMIATLSDACEREFGLATRLFRVFEETESQCK	:	649
PC473	:	TKALPVRELEFTDYNRLSSVGGETSLAEMIATLSDACEREFGLATRLFRVFEETESQCK	:	649
AB033076	:	TKALPVRELEFTDYNRLSSVGGETSLAEMIATLSDACEREFGLATRLFRVFEETESQCK	:	648
XM_045362	:	TKALPVRELEFTDYNRLSSVGGETSLAEMIATLSDACEREFGLATRLFRVFEETESQCK	:	648
AF239045	:	KKWKKTCCLPSEVIFLEFIVGCIISGTTLLAIFRVDPKHLTVNAILLISIASVWGLAFVLN	:	707
AF313464	:	KKWKKTCCLPSEVIFLEFIVGCIISGTTLLAIFRVDPKHLTVNAILLISIASVWGLAFVLN	:	708
PC473	:	KKWKKTCCLPSEVIFLEFIVGCIISGTTLLAIFRVDPKHLTVNAILLISIASVWGLAFVLN	:	708
AB033076	:	KKWKKTCCLPSEVIFLEFIVGCIISGTTLLAIFRVDPKHLTVNAILLISIASVWGLAFVLN	:	707
XM_045362	:	KKWKKTCCLPSEVIFLEFIVGCIISGTTLLAIFRVDPKHLTVNAILLISIASVWGLAFVLN	:	707

FIG 20C

AF239045	:	CRTWQVLD	SL	NS	QR	KL	HS	AA	SK	LH	KL	K	SE	GF	MK	V	L	K	CE	VE	LM	AR	MA	K	T	ID	SF	TQ	NQ	:	766
AF313464	:	CRTWQVLD	SL	NS	QR	KL	HS	AA	SK	LH	KL	K	SE	GF	MK	V	L	K	CE	VE	LM	AR	MA	K	T	ID	SF	TQ	NQ	:	767
PC473	:	CRTWQVLD	SL	NS	QR	KL	HS	AA	SK	LH	KL	K	SE	GF	MK	V	L	K	CE	VE	LM	AR	MA	K	T	ID	SF	TQ	NQ	:	767
AB033076	:	CRTWQVLD	SL	NS	QR	KL	HS	AA	SK	LH	KL	K	SE	GF	MK	V	L	K	CE	VE	LM	AR	MA	K	T	ID	SF	TQ	NQ	:	766
XM_045362	:	CRTWQVLD	SL	NS	QR	KL	HS	AA	SK	LH	KL	K	SE	GF	MK	V	L	K	CE	VE	LM	AR	MA	K	T	ID	SF	TQ	NQ	:	766
AF239045	:	TRLVVI	ID	GL	DA	CE	QD	KV	LQ	ML	DT	VR	VL	FS	KG	PF	IA	IF	AS	DP	HI	II	IK	AI	QN	LN	SV	LR	:	825	
AF313464	:	TRLVVI	ID	GL	DA	CE	QD	KV	LQ	ML	DT	VR	VL	FS	KG	PF	IA	IF	AS	DP	HI	II	IK	AI	QN	LN	SV	LR	:	826	
PC473	:	TRLVVI	ID	GL	DA	CE	QD	KV	LQ	ML	DT	VR	VL	FS	KG	PF	IA	IF	AS	DP	HI	II	IK	AI	QN	LN	SV	LR	:	826	
AB033076	:	TRLVVI	ID	GL	DA	CE	QD	KV	LQ	ML	DT	VR	VL	FS	KG	PF	IA	IF	AS	DP	HI	II	IK	AI	QN	LN	SV	LR	:	825	
XM_045362	:	TRLVVI	ID	GL	DA	CE	QD	KV	LQ	ML	DT	VR	VL	FS	KG	PF	IA	IF	AS	DP	HI	II	IK	AI	QN	LN	SV	LR	:	825	
AF239045	:	SNINGH	DY	MR	NI	VI	HL	PV	EL	NS	RGL	SN	AR	KF	LV	TS	SAT	NG	DI	TC	SD	TT	GT	QED	T	DR	RV	SQ	:	884	
AF313464	:	SNINGH	DY	MR	NI	VI	HL	PV	EL	NS	RGL	SN	AR	KF	LV	TS	SAT	NG	DI	TC	SD	TT	GT	QED	T	DR	RV	SQ	:	885	
PC473	:	SNINGH	DY	MR	NI	VI	HL	PV	EL	NS	RGL	SN	AR	KF	LV	TS	SAT	NG	DI	TC	SD	TT	GT	QED	T	DR	RV	SQ	:	885	
AB033076	:	SNINGH	DY	MR	NI	VI	HL	PV	EL	NS	RGL	SN	AR	KF	LV	TS	SAT	NG	DI	TC	SD	TT	GT	QED	T	DR	RV	SQ	:	884	
XM_045362	:	SNINGH	DY	MR	NI	VI	HL	PV	EL	NS	RGL	SN	AR	KF	LV	TS	SAT	NG	DI	TC	SD	TT	GT	QED	T	DR	RV	SQ	:	884	
AF239045	:	SLGEMT	KL	GS	KT	AL	NR	RD	TY	RR	RQ	MQ	RT	IT	RM	SE	DL	TK	LV	TE	DM	FS	DI	SP	QT	MR	RL	:	943		
AF313464	:	SLGEMT	KL	GS	KT	AL	NR	RD	TY	RR	RQ	MQ	RT	IT	RM	SE	DL	TK	LV	TE	DM	FS	DI	SP	QT	MR	RL	:	944		
PC473	:	SLGEMT	KL	GS	KT	AL	NR	RD	TY	RR	RQ	MQ	RT	IT	RM	SE	DL	TK	LV	TE	DM	FS	DI	SP	QT	MR	RL	:	944		
AB033076	:	SLGEMT	KL	GS	KT	AL	NR	RD	TY	RR	RQ	MQ	RT	IT	RM	SE	DL	TK	LV	TE	DM	FS	DI	SP	QT	MR	RL	:	943		
XM_045362	:	SLGEMT	KL	GS	KT	AL	NR	RD	TY	RR	RQ	MQ	RT	IT	RM	SE	DL	TK	LV	TE	DM	FS	DI	SP	QT	MR	RL	:	943		

FIG 20D



AF239045	:	NIVSVTGRLLRANQITFNWDRLASMINLTEQMPYRTSMILLYLEETEGLPDQMTLKTII	:	1002
AF313464	:	NIVSVTGRLLRANQITFNWDRLASMINLTEQMPYRTSMILLYLEETEGLPDQMTLKTMY	:	1003
PC473	:	NIVSVTGRLLRANQISFNWDRLASMINLTEQMPYRTSMILLYLEETEGLPDQMTLKTII	:	1003
AB033076	:	NIVSVTGRLLRANQISFNWDRLASMINLTEQMPYRTSMILLYLEETEGLPDQMTLKTII	:	1002
XM_045362	:	NIVSVTGRLLRANQISFNWDRLASMINLTEQMPYRTSMILLYLEETEGLPDQMTLKTII	:	1002
* 960 * 980 * 1000				
AF239045	:	ERISKNIPPTTKDVEPILLEIDGDIRNFEVEFLSSRTPVLVARDVKTELPCTVNLDPKLREI	:	1061
AF313464	:	ERISKNIPPTTKDVEPILLEIDGDIRNFEVEFLSSRTPVLVARDVKTELPCTVNLDPKLREI	:	1062
PC473	:	ERISKNIPPTTKDVEPILLEIDGDIRNFEVEFLSSRTPVLVARDVKTELPCTVNLDPKLREI	:	1062
AB033076	:	ERISKNIPPTTKDVEPILLEIDGDIRNFEVEFLSSRTPVLVARDVKTELPCTVNLDPKLREI	:	1061
XM_045362	:	ERISKNIPPTTKDVEPILLEIDGDIRNFEVEFLSSRTPVLVARDVKTELPCTVNLDPKLREI	:	1061
* 1020 * 1040 * 1060				
AF239045	:	IADVRAAREQINIGGLAYPPLPLHEGPPRPESGYSQPAASVCSASAENGPEFPGGVVSPQP	:	1120
AF313464	:	IADVRAAREQINIGGLAYPPLPLHEGPPRPESGYSQPAASVCSASAENGPEFPGGVVSPQP	:	1121
PC473	:	IADVRAAREQISIGGLAYPPLPLHEGPPRAPESGYSQPPSVCSSTSENGPEFAGGVVSPQP	:	1121
AB033076	:	IADVRAAREQISIGGLAYPPLPLHEGPPRAPESGYSQPPSVCSSTSENGPEFAGGVVSPQP	:	1120
XM_045362	:	IADVRAAREQISIGGLAYPPLPLHEGPPRAPESGYSQPPSVCSSTSENGPEFAGGVVSPQP	:	1120
* 1080 * 1100 * 1120				
AF239045	:	HSSYYSGLSGPGQHPFYNRPFAPLYTPRYYPGGSQHLSRSSVKTSIPRDQNGIPLCD	:	1179
AF313464	:	HSSYYSGLSGPGQHPFYNRPFAPLYTPRYYPGGSQHLSRSSVKTSIPRDQNGIPLCD	:	1138
PC473	:	HSSYYSGMTGPGQHPFYNRPFAPLYTPRYYPGGSQHLSRSSVKTSIPRDQNGIPLCD	:	1138
AB033076	:	HSSYYSGMTGPGQHPFYNRPFAPLYTPRYYPGGSQHLSRSSVKTSIPRDQNGIPLCD	:	1179
XM_045362	:	HSSYYSGMTGPGQHPFYNRPFAPLYTPRYYPGGSQHLSRSSVKTSIPRDQNGIPLCD	:	1179
* 1140 * 1160 * 1180				

FIG 20E

	360	*	1380	*	1400	*	
AF239045	:						: 1407
AF313464	:						: 1359
PC473	:						: 1359
AB033076	:						: 1415
XM 045362	:						: -

**FIG 20F**

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AF239045	:	1420	*	1440	*	1460	*	:	1466
AF313464	:							:	1418
PC473	:							:	1418
AB033076	:							:	1474
XM_045362	:							:	-
<hr/>									
AF239045	:	1480	*	1500	*	1520	*	:	1525
AF313464	:							:	1477
PC473	:							:	1477
AB033076	:							:	1533
XM_045362	:							:	-
<hr/>									
AF239045	:	1540	*	1560	*	1580	*	:	1583
AF313464	:							:	1536
PC473	:							:	1535
AB033076	:							:	1591
XM_045362	:							:	-
<hr/>									
AF239045	:	1600	*	1620	*	1640	*	:	1642
AF313464	:							:	1595
PC473	:							:	1594
AB033076	:							:	1650
XM_045362	:							:	-

FIG 20G

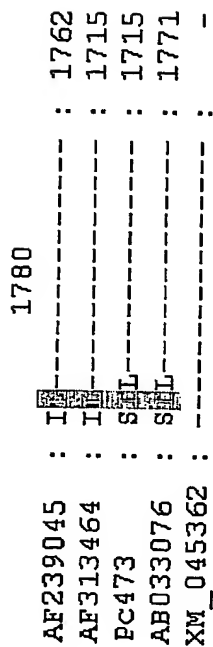
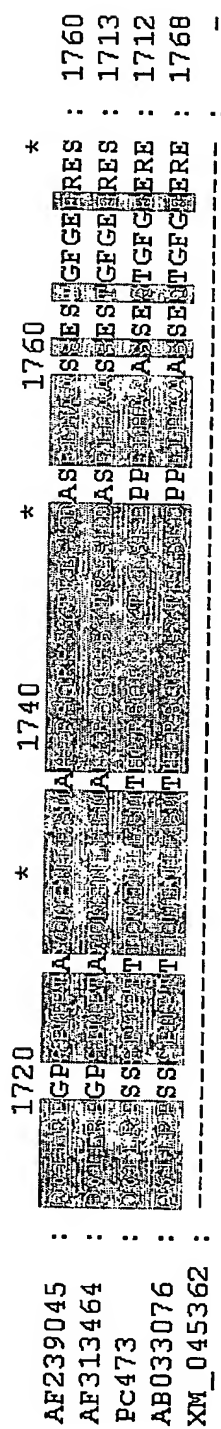


FIG 20H

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BCU1041 : * 20 * 40 * 60
AK_014463 : P : 60
XM_058887 : S : 60
----- : -

BCU1041 : * 80 * 100 * 120
AK_014463 : A - A : 119
XM_058887 : S G V : 120
----- : -

BCU1041 : * 140 * 160 * 180
AK_014463 : - V S P : 178
XM_058887 : : 180
----- : -

BCU1041 : * 200 * 220 * 240
AK_014463 : : 238
XM_058887 : : 240
----- : -

BCU1041 : * 260 * 280 * 300
AK_014463 : MERRMQLVKKDNEKERHKL QGYE EEREE ELSE : 298
XM_058887 : MERRMQLVKKRDNEKERHKL QGYE PEEREEAELSE : 300
MERRMQLVKKDNEKERHKL QGYE EEREE ELSE : 35

BCU1041 : * 320 * 340 * 360
AK_014463 : KIKLE QPEL ETSQ LP KPFSCGRSGKGHKRKS PFG TERK PVKKLAPEFSKVTKT : 358
XM_058887 : KIKLE QPEL ETSQ LP KPFSCGRSGKGHKRKS PFG TERK PVKKLAPEFSKVTKT : 360
KIKLE QPEL ETSQ LP KPFSCGRSGKGHKRKS PFG TERK PVKKLAPEFSKVTKT : 95

BCU1041 : * 380 * 400 * 420
AK_014463 : PKHSPIKEEPCGSLSETVCKRELRSQETPEKPRSSVDTPPRLSTPQKGPSTHPKEKAFSS : 418
XM_058887 : PKHSPIKEEPCGSISETVCKRELRSQETPEKPRSSVDTPPRLSTPQKGPSTHPKEKAFSS : 420
PKHSPIKEEPCGSLSETVCKRELRSQETPEKPRSSVDTPPRLSTPQKGPSTHPKEKAFSS : 155

BCU1041 : * 440 * 460 * 480
AK_014463 : EIEDLPYLSTTEMYLCRWHQPPPSPLPLRESSPKKEETVA : 478
XM_058887 : EIEDLPYLSTTEMYLCRWHQPPPSPLPLRESSPKKEETVA : 480
EIEDLPYLSTTEMYLCRWHQPPPSPLPLRESSPKKEETVASKA----- : 198

BCU1041 : * 500 * 520 * 540
AK_014463 : : 538
XM_058887 : : 540
----- : -

BCU1041 : * 560 * 580 * 600
AK_014463 : : 598
XM_058887 : T A : 600
----- : -

BCU1041 : * 620 * 640 * 660
AK_014463 : Q : 614
XM_058887 : H : 616
----- : -

```

FIG 21

HUMAN : MGVIQIQLVVTVMASVMQKIIPHYSLARWLLCNGSLRWYQHPTEELRILAGKQKQKGT 60  
 BCU0399BF : MGVIQIQLVVTVMASVMQKIIPHYSLARWLLCNGSLRWYQHPTEELRILAGKQKQKGT 60  
 MONKEY : ----- 60

HUMAN : KKDRKYNHIESKPLTIPKDIDLHLETKSVTEVDTLALHYFPEYQWLVDFTVAATVVYLV : 120  
 BCU0399BF : KKDRKYNHIESKPLTIPKDIDLHLETKSVTEVDTLALHYFPEYQWLVDFTVAATVVYLV : 120  
 MONKEY : -----

HUMAN : TEVYYNFMKPTQEMNISLWCLLVLSFAIRRW----- : 153  
 BCU0399BF : TEVYYNFMKPTQEMNISLWCLLVLSFAIKVLFSLTTHYFKVEDGGERSVCVTFGFFFFV : 180  
 MONKEY : -----MKPTQEMNISLWCLLVLSFAIKVLFSLTTHYFKVEDGGERSVCVTFGFFFFV : 53

HUMAN : ----- : -  
 BCU0399BF : KAMAVLTVTENYLEFGLETGFTNPSDSAMQFLEKQGLSQSPVSKLTFKFFLAIFCSFIS : 240  
 MONKEY : KAMAVLTVTENYLEFGLETGFTNPSDSAMQFLEKQGLSQSPVSKLTFKFFLAIFCSLIG : 113

HUMAN : ----- : -  
 BCU0399BF : AFLTFPGLRLAQHLDALNLATEKITQTLLHINFLAPLFMVLLWVKPITKDYIMNPPLGK : 300  
 MONKEY : AFLTFPGLRLAQHLDALNLATEKITQTLLHINFLAPLFMVLLWVKPITKDYIMNPPLGK : 173

HUMAN : ----- : -  
 BCU0399BF : ESIPLMTEATFDTLRLWLIILLCALRLAMMRSHLQAYLNLAQKQVDQMKKEAGRISTVEL : 360  
 MONKEY : ESIPLMTEATFDTLRLWLIILLCALRLAMMRSHLQAYLNLAQKQVDQMKKEAGRISTVEL : 233

HUMAN : ----- : -  
 BCU0399BF : QKMVARVFYYLCVIALQYVAPLVMLLHTTLLKTLGNHSWGIYPESISTLPVDNSLLSNS : 420  
 MONKEY : QKMVARVFYYLCVIALQYVAPLVMLLHTTLLKTLGNHSWGIYPESISTLPADNSLLSNS : 293

HUMAN : ----- : -  
 BCU0399BF : VYSELP SAE GKMKVTVTQITVALSSLKNIFTPLLFRGLLSFLTWWIAACLFSTSLFGLFY : 480  
 MONKEY : VYSELP SAE GKMKVTVTQITVALSSLKNIFTPLLFRGLLSFLTWWIAACLFSTSLFGLFY : 353

HUMAN : ----- : -  
 BCU0399BF : HQYLTV : 487  
 MONKEY : HQYLTV : 360

FIG 22

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